LIBRARY OF CONGRESS
RECEIVED
1903
PERIODICAL

The American Artisan
THE HARDWARE RECORD

Volume 45—No. 18. CHICAGO, MAY 2, 1903. $2.00 Per Year.

BOLTS
and Carriage Forgings
Write for General Catalogue "C" and Prices.
COLUMBUS BOLT WORKS, Columbus, Ohio.

PURE "SAMPSON" ASPHALT BRAND" ROOFING
Never Dries Out or Cracks. Planet Brand Tarred Ready Roofing, Sisters' Felt, Building Papers, Roofing Cements, Paints, Etc. WRITE US FOR PRICES.
J. L. PERKINS & CO., 235 Lake St., CHICAGO

Never Will Leak . . .

American Seal Elastic Oil cement will not get hard—always stays elastic.

Stops leaks in any roof—old or new, and will wear for years. Fix up the roof now and stop the leakage—in money and roof.

Use it on new work for jointing and 'round your skylights—follow it with a coat of American Seal Roof Paint—the best made—and the top of your house is safe for years. *Prices for the asking.*

THE WM. CONNORS PAINT MFG. CO.,
TROY, NEW YORK.
WESTERN AGENTS Dept. A. { J. L. Perkins & Co., 235 Lake St., Chicago. Stockhoff Supply Co., 107 North Main St., St. Louis.

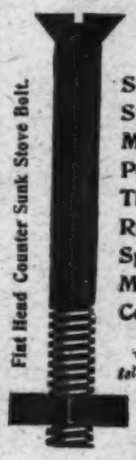
"To discontinue your advertisement," says Ex-Postmaster-General John Wanamaker, one of the largest advertisers in the world—and naturally enough, one of the most successful business men,—"is like taking down your sign. If you want to do business, you must let the people know it. I would as soon think of doing business without clerks as without advertising"

TINNERS FIND EMPLOYMENT
By advertising and using THE POWERS AUTOMATIC CHIMNEY TOPS
They make chimneys draw, give tinners employment making stocks, and give the dealers profit
Sold by Hardware Jobbers and Dealers
Made only by POWERS BROS. STREATOR, ILL.
This cut free to dealers.

BURTON'S Fuel Economizer

Attached to a stove pipe saves more fuel and radiates more heat than any other stove pipe attachment.
AN EASY SELLER.
Assertions Backed by Guarantee.
The W. J. BURTON CO.
DETROIT, MICH.

THE ATLAS BOLT & SCREW CO.
CLEVELAND, OHIO



have unsurpassed facilities for the manufacture of
Stove Bolts,
Stove Rods,
Machine Screws,
Pointed Pins,
Threaded Wires,
Rivets,
Special Bolts,
Mica Bolts,
Cold Pressed Nuts.
We have a large *clientele* among stove men who appreciate our high quality, prompt deliveries and attractive prices. Let us hear from you.

SCALES
The critical weighers prefer "Osgood" scales. We offer new patterns and thoroughly up-to-date goods. Write for Catalogue
OSGOOD SCALE CO.,
BINGHAMTON, NEW YORK.

Black Diamond Files and Rasps
PERFECT—ALWAYS
Twelve Medals Awarded

At International Expositions
G. & H. BARNETT CO.
Black Diamond File Works, PHILADELPHIA, PA.

Nicholson File Co.
GENERAL OFFICES: PROVIDENCE, R. I., U.S.A.
Manufacturers of

FILES and RASPS
NICHOLSON, KEARNEY & FOOT, ARCADE, AMERICAN, GREAT WESTERN, McCLELLAN, EAGLE, J. B. SMITH, "X. F." GOLD MEDAL.

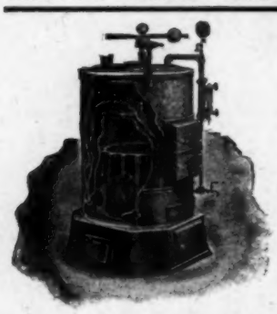
GENEVA TOOL CO. Hand Agricultural Tools, GENEVA, OHIO.

Our immense sales volume—annually increasing—results from pleasing the contractor with methods which save his time and money—with goods which satisfy—to wit:—AMERICAN Radiators, IDEAL Boilers.

AMERICAN RADIATOR COMPANY

LAKE & DEARBORN STREETS, CHICAGO.

New York. Boston. Philadelphia. Buffalo. St. Louis Minneapolis. Detroit.



The Columbia

OUR NEW PORTABLE BOILER

for Steam and Hot-Water Heating, is a trade winner. If you have not received our price-list write for it and secure the agency for your city.

VANCE BOILER WORKS, 148 Water Street, Geneva, N. Y.

"TABASCO" WATER HEATERS

All Steel, Self-Feed Shaking Grate

FOR

Small Residences, Green Houses, Flats, Hotels, Baptistries, Bath Houses, any place a supply of hot water is needed.

Send for Catalog.

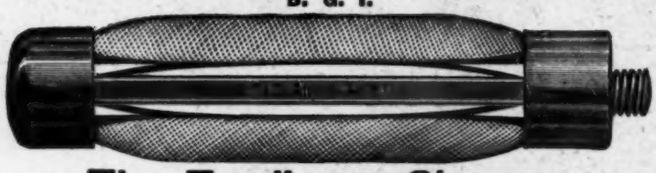
KEWANEE BOILER COMPANY

KEWANEE, ILL.

CHICAGO STORE: 167-169 E. Lake St. CHICAGO.

MAYER & COMPANY

B. G. I.



The Tomlinson Cleaner

Is the most satisfactory means of thoroughly cleaning a shot gun ever invented. It will absolutely remove rust spots and keep a gun in perfect condition. Will fit any standard rod and any gun. The Tomlinson is cheap at $1.00 for it will last a lifetime with proper care. New wire sides furnished.

BRIDGEPORT GUN IMPLEMENT CO.,

Agency 313 Broadway, New York City, N. Y. BRIDGEPORT, CONN.

M. TRAVILLA,

QUINCY, ILL.,

MANUFACTURER

"Air-Tight" Stoves

ASK FOR PRICES.

Wellsville Polished Steel

"THE VERY BEST."

PETERS AMMUNITION

Peters Factory Loaded Shells Is the most complete line of Shotgun Ammunition on the market.

Loaded with all the standard bulk and dense smokeless powders, semi-smokeless and black powder, fulfilling every requirement of the sportsman at the trap or in the field.

Peters Cartridges Hold the World's Records in Rifle, Revolver and Pistol Shooting.

Eastern Department: 80 CHAMBERS ST., NEW YORK. T. H. Keller, Manager.

HIBBARD, SPENCER, BARTLETT & CO., Chicago, Ill.
CHARLES G. GRUBB, Pittsburg, Pa.
F. B. CHAMBERLAIN CO., St. Louis, Mo.

THE PETERS CARTRIDGE CO.

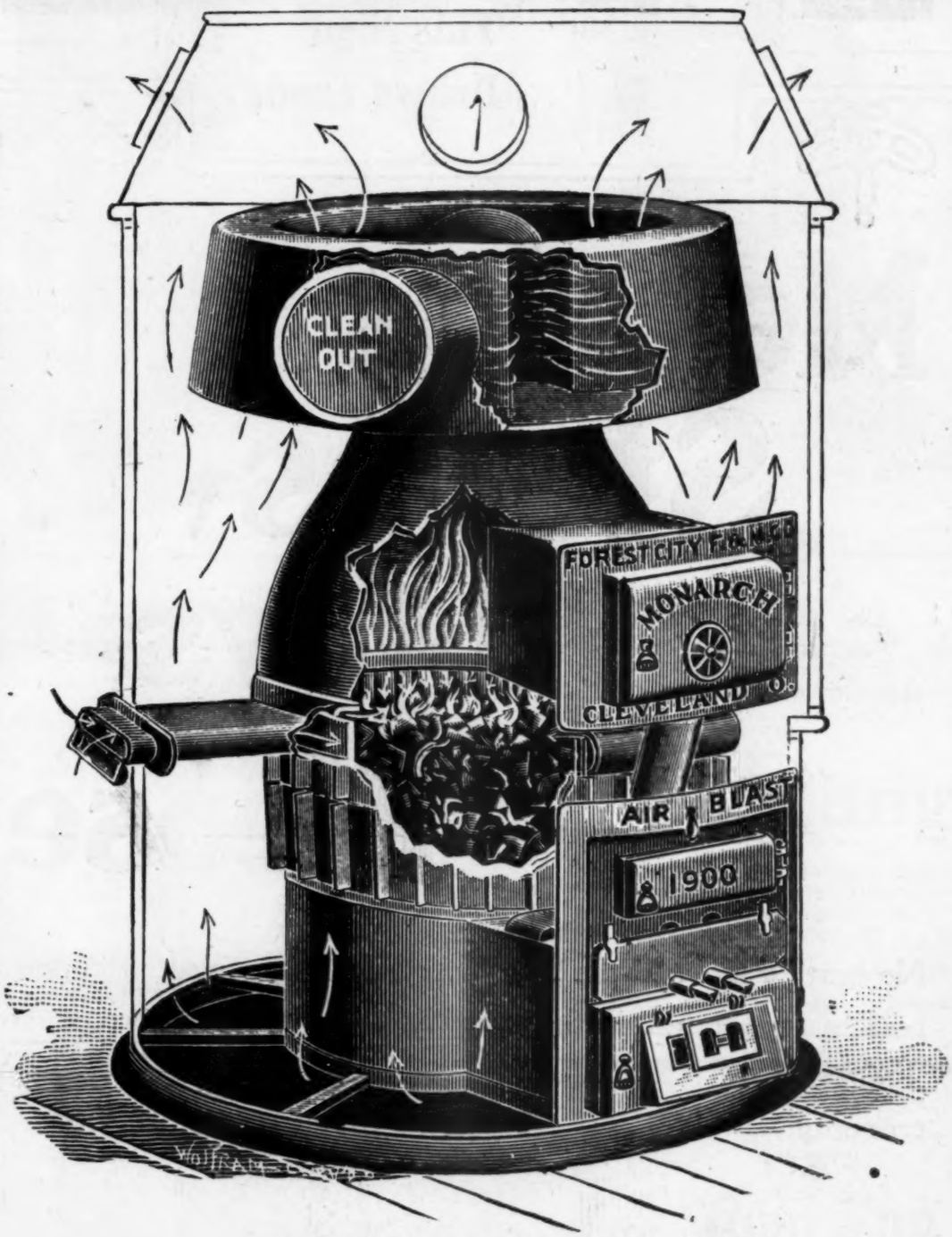
CINCINNATI, OHIO

For "GOODNESS" Sake

...SELL THE...

Monarch Air Blast Furnace

All Cast Furnace for all Fuel



Coal and Natural Gas Combination

WRITE FOR CATALOGUE

The Forest City Foundry & Mfg. Co.

Winslow and Elm Streets, - - CLEVELAND, OHIO.

This Sign
Draws Trade

Moore's Stoves Always Please

No heating stove in the past ten years has gained so strong a hold in the homes of the American People, as Moore's Air-Tight Heater. The name is significant of comfort and coal economy.

JOLIET STOVE WORKS,
JOLIET, ILLINOIS.

HOLBROOK, MERRILL & STETSON, San Francisco, Sacramento, Los Angeles.

THE SUN STOVE COMPANY

DETROIT, MICHIGAN.

MANUFACTURERS OF **SUN STOVES**

HOT BLAST FOR COAL

Gasoline, Oil and Gas Stoves,
Ovens and Oil Heaters,
Hot Blast Smoke Consuming Coal Heaters,
Air-Tight Heaters for Wood,
Gasoline Torches and Lamps.

The Sun Oil Heaters for small rooms, offices, etc., where moderate heat is required are attractive in design, highly finished, light and portable, smokeless and odorless, low priced. Materials and workmanship the best—they have no superior. Write for printed matter.

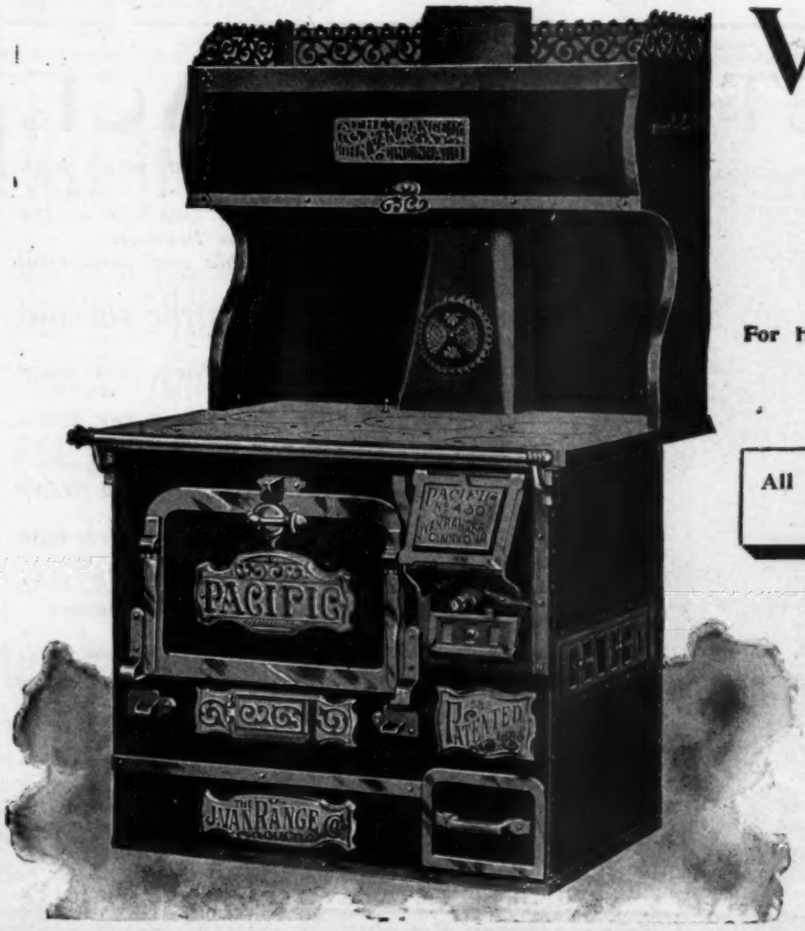
Our Sun Hot Blast Smoke Consuming Coal Stove for soft or hard coal is not equaled by any on the market. Consumes **90 per cent** of smoke of soft coal. Does not clog the chimney with soot, and throws out a greater heat than any base burner. Construction and finish the very best.

The Sun Air-Tight

Stoves for Wood are all strictly up-to-date in finish and construction. None are better made. We make all the selling sizes.

A TRIAL ORDER WILL CONVINCE YOU.

AIR-TIGHT FOR WOOD



Van's

Pat. Improved Wrought Steel Portable

Range

For HOTELS, RESTAURANTS, PUBLIC INSTITUTIONS, BOARDING HOUSES and PRIVATE FAMILIES.

All Kinds of Hotel Implements for Culinary Purposes.

Manufactured and For Sale by

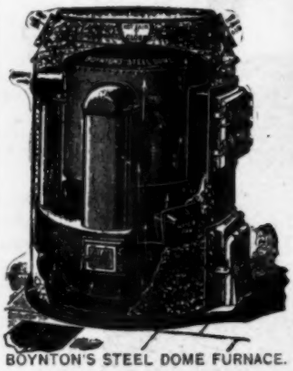
The John Van Range Co.

419 Elm and
410, 412, 414 & 416 Home Sts.
CINCINNATI, OHIO

1903

THE ONLY GENUINE

BOYNTON Heaters



BOYNTON'S STEEL DOME FURNACE.

FURNACES, COMBINATION, HOT WATER AND STEAM.

ALWAYS UP-TO-DATE.

Reliable, Economical, Best Known, Easiest Handled. A Postal Will Bring Full and Definite Information.

The Boynton Furnace Co.,

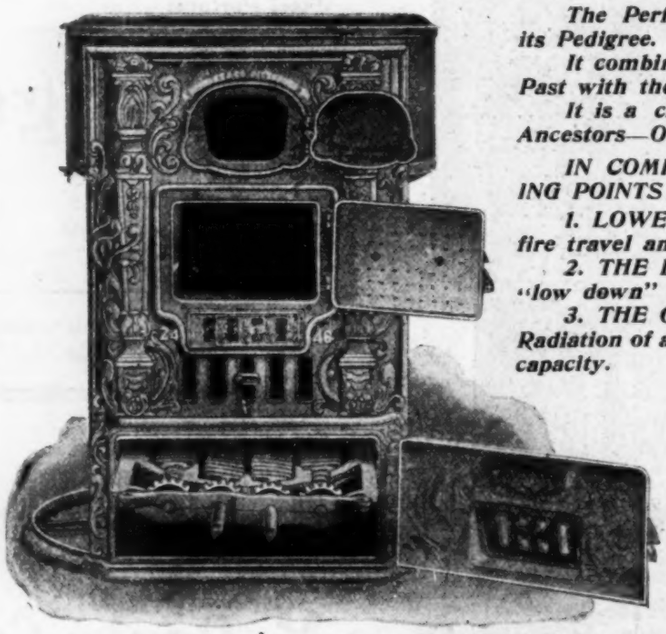
207-209 Water St., New York

147-149 Lake St., Chicago

1903

"Some Goods are considered Standard from Pedigree; others achieve this Distinction by Performance."

THE ETNA FURNACE



The Performances of this piece of goods back its Pedigree.

It combines the good Furnace Qualities of the Past with the Improvements of the Present.

It is a credit to its Honorable and Successful Ancestors—Our Predecessors.

IN COMPETITION IT SCORES THE FOLLOWING POINTS:

1. LOWEST HEIGHT of any furnace with equal fire travel and fire pot area.

2. THE LARGEST FIRE TRAVEL of any of the "low down" types of furnaces.

3. THE GREATEST AMOUNT of "high power" Radiation of any furnace of equal height and firepot capacity.

4. THE BEST FIRE POT ever built by anybody.

5. THE MOST POWERFUL FURNACE ever put in same size casings.

These are the facts that corroborate our statement that it is the

Best Proportioned Furnace Ever Built.

We furnish Catalogues and expert assistance.

PITTSBURGH STOVE & RANGE CO. Pittsburgh, Pa.

FACTS THAT WON'T RUB OUT.

FIRE POTS.	*CASING.*	*HEIGHT CASTINGS.*
18 inches	36 inches	47 inches
21 inches	40 inches	48 inches
24 inches	46 inches	52 inches
27 inches	52 inches	52 inches
30 inches	60 inches	55 inches

Fire Pots are Straight.

Hold

Your home trade, Mr. Dealer, by putting WILLARD STEEL Ranges on your floor. These high quality goods at low prices make competition from mail order houses a sheer impossibility.

Wm. G. Willard, Mfr.

619-621 N. Fourth St., ST. LOUIS, MO.

FLORAL CITY FURNACES

Are strictly up-to-date, old patterns have been relegated to the scrap heap, old methods discarded, but they are in no sense experiments. Every furnace is time tried and has been thoroughly tested in a climate where the temperature often falls to 40° and 50° below zero. Write for catalogue.

MONROE FOUNDRY & FURNACE CO.

MONROE, MICH.

FRIENDS

are what you need to prosper, Mr. Dealer, and you will make friends of your customers if you handle the **CROWN FURNACES.** These Furnaces are economical of fuel, and are generally satisfactory to users.

Write for Catalogue.

March-Brownback Stove Co.,

POTTSTOWN, PA.

The Crown Low Down Warm Air Furnace.

BRAND STOVE CO.

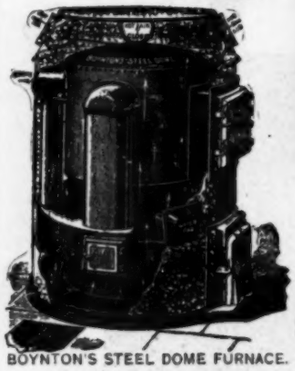
We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogue.

MILWAUKEE, WIS.

1903

THE ONLY GENUINE

BOYNTON Heaters

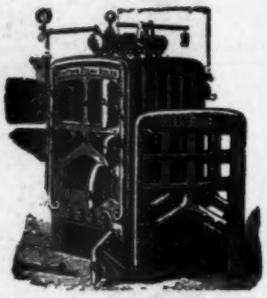


BOYNTON'S STEEL DOME FURNACE.

FURNACES, COMBINATION, HOT WATER AND STEAM.

ALWAYS UP-TO-DATE.

Reliable, Economical, Best Known, Easiest Handled. A Postal Will Bring Full and Definite Information.



The Boynton Furnace Co.,

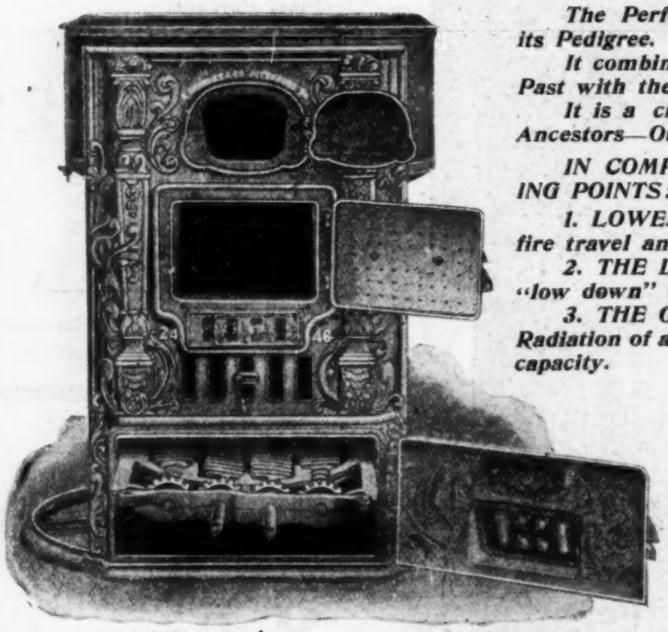
207-209 Water St., New York

147-149 Lake St., Chicago

1903

"Some Goods are considered Standard from Pedigree; others achieve this Distinction by Performance."

THE ETNA FURNACE



The Performances of this piece of goods back its Pedigree.

It combines the good Furnace Qualities of the Past with the Improvements of the Present.

It is a credit to its Honorable and Successful Ancestors—Our Predecessors.

IN COMPETITION IT SCORES THE FOLLOWING POINTS:

1. LOWEST HEIGHT of any furnace with equal fire travel and fire pot area.

2. THE LARGEST FIRE TRAVEL of any of the "low down" types of furnaces.

3. THE GREATEST AMOUNT of "high power" Radiation of any furnace of equal height and firepot capacity.

4. THE BEST FIRE POT ever built by anybody.

5. THE MOST POWERFUL FURNACE ever put in same size casings.

These are the facts that corroborate our statement that it is the

Best Proportioned Furnace Ever Built.

FACTS THAT WON'T RUB OUT.

FIRE POTS.	CASING.	HEIGHT CASTINGS.
18 inches	36 inches	47 inches
21 inches	40 inches	48 inches
24 inches	46 inches	52 inches
27 inches	52 inches	52 inches
30 inches	60 inches	55 inches

Fire Pots are Straight.

We furnish Catalogues and expert assistance.

PITTSBURGH STOVE & RANGE CO. Pittsburgh, Pa.

Hold

Your home trade, Mr. Dealer, by putting WILLARD STEEL Ranges on your floor. These high quality goods at low prices make competition from mail order houses a sheer impossibility.

Wm. G. Willard, Mfr.

619-621 N. Fourth St., ST. LOUIS, MO.

FLORAL CITY FURNACES

Are strictly up-to-date, old patterns have been relegated to the scrap heap, old methods discarded, but they are in no sense experiments. Every furnace is time tried and has been thoroughly tested in a climate where the temperature often falls to 40° and 50° below zero. Write for catalogue.

MONROE FOUNDRY & FURNACE CO.

MONROE, MICH.

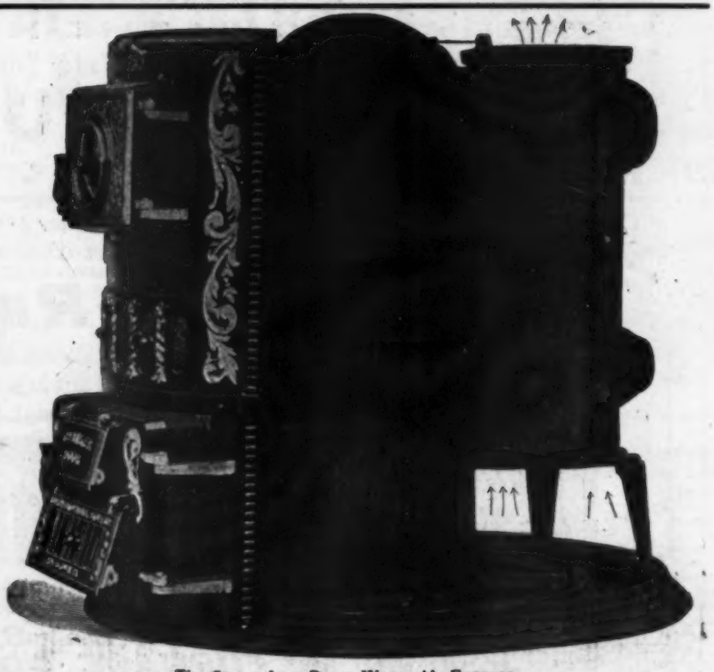
FRIENDS

are what you need to prosper, Mr. Dealer, and you will make friends of your customers if you handle the **CROWN FURNACES.** These Furnaces are economical of fuel, and are generally satisfactory to users.

Write for Catalogue.

March-Brownback Stove Co.,

POTTSTOWN, PA.

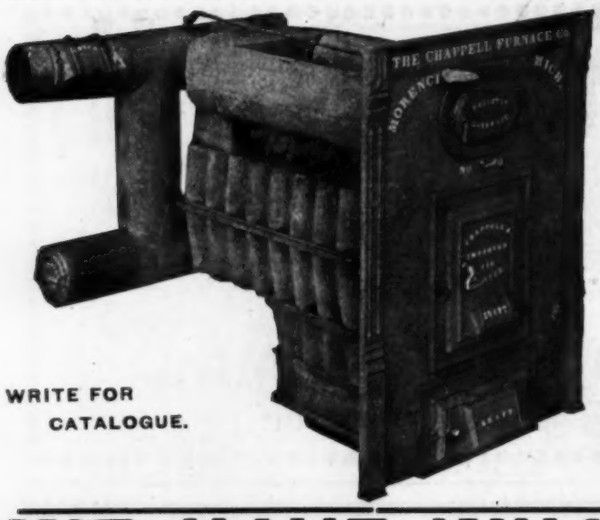


The Crown Low Down Warm Air Furnace.

BRAND STOVE CO.

We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogue.

MILWAUKEE, WIS.



WRITE FOR CATALOGUE.

We Invite You

To examine the merits of this

Excellent Furnace.

The CHAPPELL is all cast iron.
The CHAPPELL burns long wood or coal.
The CHAPPELL has seamless radiators.
The CHAPPELL has long fire travel.
The CHAPPELL has only eight joints.

The Chappell Furnace Co.,
MORENCI, MICH.

WE HAVE WHAT YOU WANT

THE BEST

FURNACES AND BOILERS MADE THE

MUELLER

HAS NO EQUAL

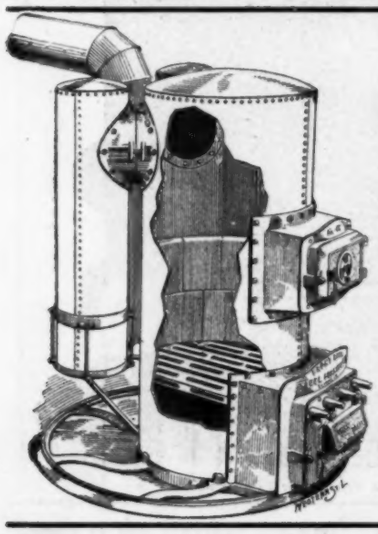
WRITE FOR CATALOGUE AND PRICES

EVERYTHING IN THE HEATING LINE

ESTABLISHED 1857

L. J. MUELLER FURNACE CO.

191 REED STREET, ... MILWAUKEE, WIS.



The secret of the great success of the

Front Rank

lies in the furnace itself. Every detail of its manufacture is carefully watched by the best furnace makers in the United States. It is a perfect furnace from start to finish and contains all the latest improvements.

These furnaces burn hard or soft coal or coke. We also make wood burning furnaces.

Send for our catalogue, it will give you a better idea of what we make.

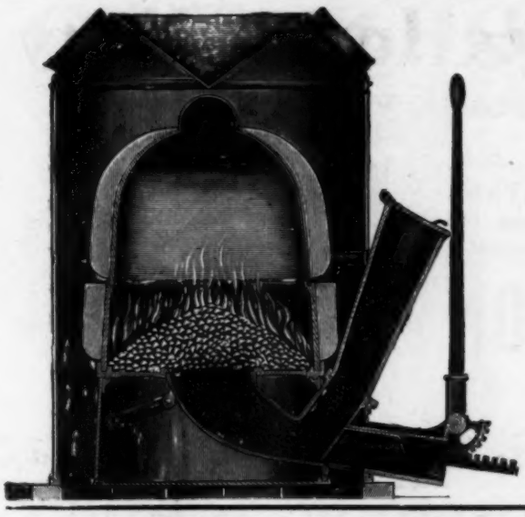
FRONT RANK STEEL FURNACE CO.,
2301 to 2309 Lucas Av., ST. LOUIS, Mo.

Hero Furnaces

Best for a cold climate.

For further particulars ask

CHAS. SMITH CO.
122 Lake St., - Chicago, Ill.



Go Boldly

Mr. Dealer to the man who thinks of putting in a new furnace and tell him he can save half his coal bill if he installs an **Underfeed furnace.** You will find this the way to make money in the furnace business. The cut shows a section through furnace and casing, showing feeding mechanism and rotary grate. Write for catalogue.

...The Western...
Furnace & Foundry Co.,
1218 Harney St., Omaha, Neb.

WEIR ALL STEEL GAS AND SOOT CONSUMING FURNACE.

THE HEAVIEST STEEL FURNACE MADE.

Absolutely Gas and Dust Tight. A Great Heat-Producer, but a Fuel Saver.

MANUFACTURED BY

THE MEYER FURNACE CO.

1300-1304 S. Washington St.,

Send for Catalogue. PEORIA, ILLS.

"The HANDY FURNACE PIPE"

Made with a View of Being Safe.

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

MANUFACTURED BY

F. MEYER & BRO. CO.

Send for Catalogue. PEORIA, ILLS.

EMPEROR FURNACES

For Wood

SIMPLE SAFE DURABLE

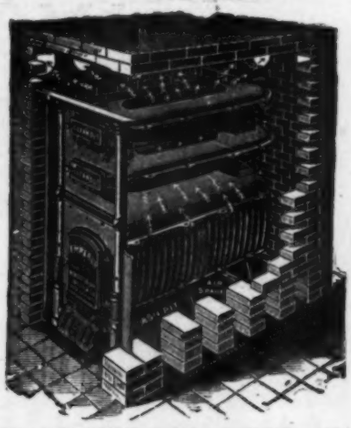
The Best and Cheapest Line of Wood Furnaces

FURNISHED FOR EITHER BRICK OR GALVANIZED IRON CASING.

Send for Catalogue.

Bergstrom Bros. Co.

NEENAH, WIS.



MONCRIEF

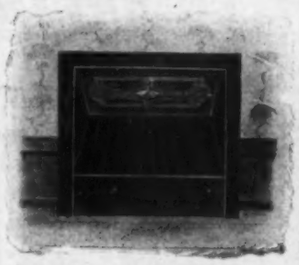
WARM AIR FURNACE.

Specialties
- All Cast Iron.
- Moncrief Duplex Grate.
- Large Radiating Surface.
- Double Fire Pot.
- Large Grate Surface.
- Top Return Flue.
- Simplicity. Durability. Economy.
- Cleanliness in Use.

HENRY & SCHEIBLE CO.

6-8-10 Long St., Cleveland, O.

THE AUER WALL REGISTER



Perfected and Tested. Not an Experiment. The only one that has the cosey appearance of the fireplace. The only one that is practical for a foot warmer.

The only one that closes tight having no grating over front to catch dirt and dust.

Write for Catalogue.

The AUER REGISTER CO., Toledo, O.

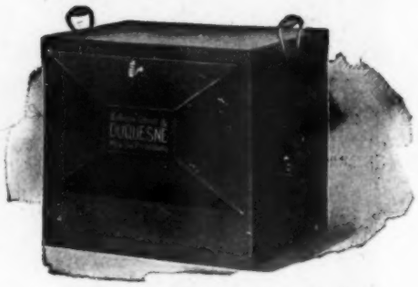
Price and Quality

MAKE VALUES.

The best values offered in **Gas Ranges, Hot Plates, Ovens and Cookers,** are sold under this name

SIMPSON

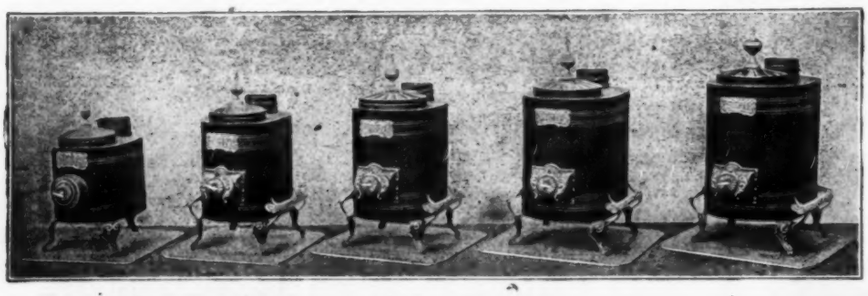
which means a guarantee



Write us for Prices and Catalogue

SIMPSON STOVE & MFG. CO. - OFFICE, PITTSBURG. WORKS, CANONSBURG.

OUR NEW LINE AIR-TIGHT STOVES



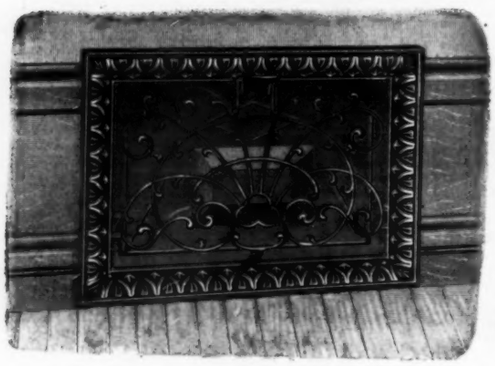
Send for Catalogue and Prices

Hopson Haftenkamp Company

Grand Rapids, Mich.

"MUELLER"

WALL REGISTER



Pat. Applied For.
To Open, Push Down Lever with Foot.

BETTER THAN ALL OTHERS.

COSTS LESS THAN MOST OTHERS.

LATEST SIMPLEST BEST.

Pat. Applied For.
To Close, Push Up Lever with Foot.

WRITE FOR CIRCULAR AND PRICES

L. J. MUELLER FURNACE CO.

191 REED STREET :: MILWAUKEE, WIS.

TO OPEN, PUSH INWARD AT TOP.

Symonds Wall Register

SEND FOR FREE SAMPLE

Symonds Mfg. Co., East St. Louis, ILL.

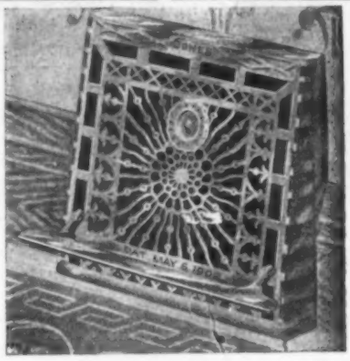
TO CLOSE, PUSH DOWN AT BOTTOM.

GILT EDGE FURNACES

THE MOST COMPLETE LINE MANUFACTURED FOR ALL KINDS OF FUEL. DURABLE, ECONOMICAL, GAS TIGHT.

***The* Jones Side-Wall Register .....**

The only register having full capacity of hot air pipe for large living rooms or for heating a room on the first floor and extension to second. Has a face of neat design and not a hole in the wall when open. Has a regulator that holds the damper permanently in position. Can not get out of order. Double safety box included in each register.

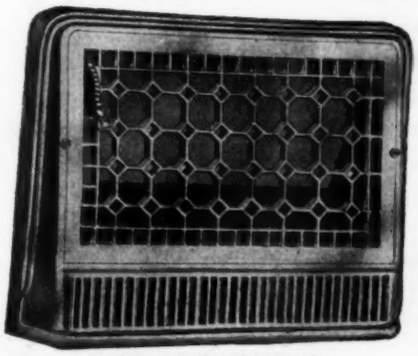


Send us sketch for plans of latest method of heating with *GILT EDGE FURNACES* and *JONES REGISTERS*, least work, least pipes, least waste of heat, most economical.

R. J. SCHWAB & SONS COMPANY,

Manufacturers of Gilt Edge Furnaces and Northwestern Distributors of Jones Side-Wall Registers. MILWAUKEE, WIS.

FERROSTEEL REGISTERS

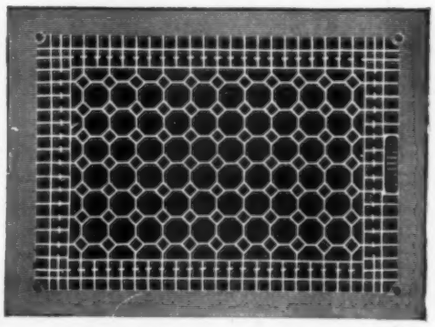


FERROSTEEL SIDE WALL

WORK

PERFECT MECHANISM
UNEQUALLED FINISH

PRICES LOWEST
TERMS LONGEST
STOCK LARGEST



FERROSTEEL FLOOR

FERROSTEEL COMPANY, CLEVELAND, OHIO.

STOWELL SIDE WALL REGISTERS

THE LATEST AND BEST

Beautiful Design
Perfect Ventilation
All Finishes
All Sizes

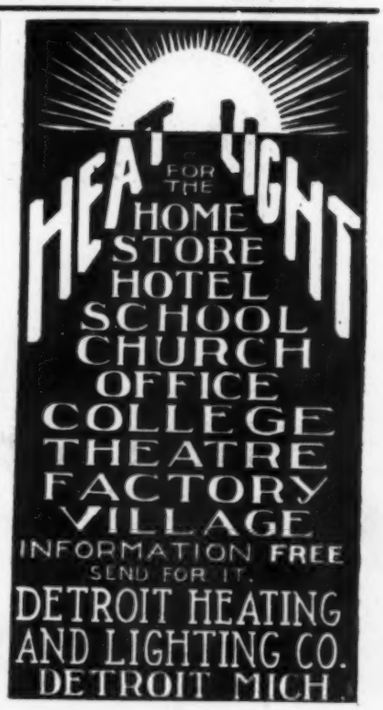
Furnished with or without pipe

ADVANTAGES

Air tight.
No discoloration.
Noiseless.
Largest air capacity.
Ventilates both floors.
No cutting of carpets or floors.
No dust.

Address Register Dept.

STOWELL MFG. & FOUNDRY CO.,
South Milwaukee, Wis.

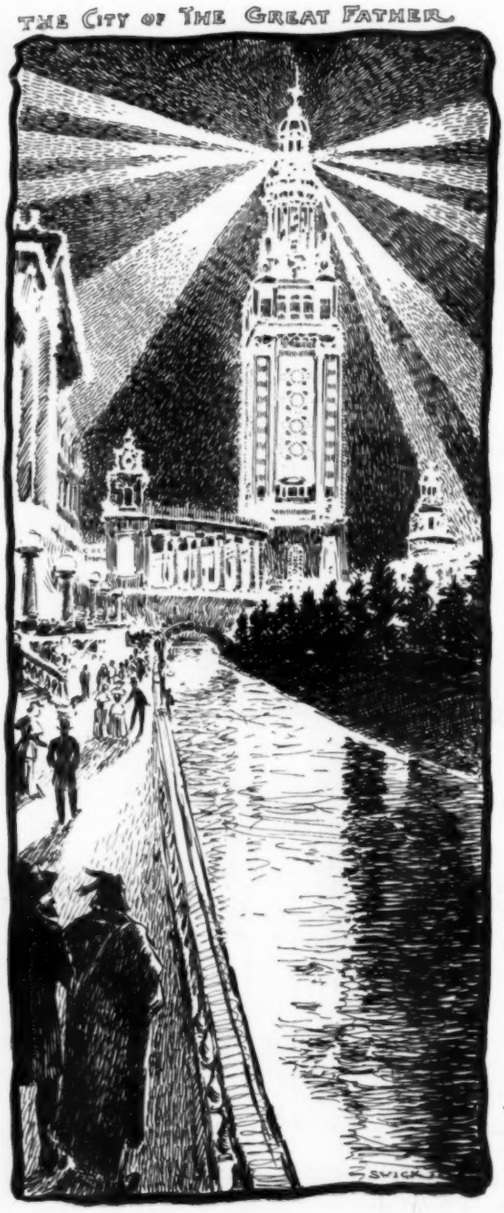


T. O. HALVERSON, Ankeny, Iowa, writes:

"My Advertisement in your paper for Tinners' Tools brought me just what I wanted. I got at least twenty-five answers from all parts of the United States."

ROUND OAK
STANDARD of AMERICA

THE CITY OF THE GREAT FATHER



Did you ever notice
that every writer
or speaker upon the
subject of advertising
preached "good goods"
firstly—or secondly—
invariably?
We all know
the reason, of course.
Round Oak steel ranges
will appeal to
every stove merchant
who believes in
good, carefully fitted,
well made—durable
steel ranges.
We say again—that it
may not be forgotten
or overlooked,
The Round Oak
steel range and the
Round Oak Chief
steel range are the two
finest examples of
steel range building
in their class
made in this country.
Now, if you want a
steel range
worth advertising—
worth pushing sales of—
with all the hustle
you have on tap—
take your choice of the
two best on earth.
We shall expect to
hear from you.

Estate of P. D. BECKWITH,
Dowagiac, Mich.
Makers of Good Goods Only.

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES, THEIR POSSESSIONS, AND CANADA, (Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
IN FOREIGN COUNTRIES EXCEPT CANADA, ONE YEAR, POSTAGE PAID, $4.00.
Address all Letters, communications and remittances to

DANIEL STERN, PUBLISHER AND PROPRIETOR,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.
THIS PAPER IS A MEMBER OF THE CHICAGO TRADE PRESS ASSOCIATION.

CHICAGO, MAY 2, 1903.

A BIRMINGHAM inventor has devised a clock that will make tea.

IMMIGRATION figures for the fiscal year 1903 seem likely to surpass those of any preceding year except 1882. The figures of the Bureau of Immigration show that the total immigration into the United States for the nine months ending with March, 1903, was 494,425, against 370,575 for the corresponding months of last year. This makes it almost certain that the total immigration into the United States for the fiscal year which ends sixty days hence will exceed that of any preceding year except 1882, in which the total was 788,992.

A SUMMARY of domestic trade movements for the first quarter of 1903 is presented in the March Summary of Internal Commerce, issued by the Treasury Bureau of Statistics. It shows that for the three months comprising the first quarter of the current year the receipts of live stock at five leading markets were 7,607,901 head, compared with 8,030,882 head last year, and 7,646,572 head in the preceding year, for corresponding periods. A comparison of traffic operations shows that to the end of March, 1903, the same five markets received 144,876 cars of stock, whereas 141,275 cars were credited to the corresponding quarter of 1902, and 112,332 cars in 1901.

A RECENT issue of Puck contains a cartoon showing a business man who purchases a number of safety appliances in order to have his insurance reduced, and then finds his rates are raised in spite of his precautions. The lesson of this picture is that board insurance rates are made too arbitrarily. Perhaps you, Mr. Reader, have been a victim. If so, don't squeal. It is not necessary. Quietly join the mutual hardware fire insurance association in your state, or if your state has none, then patronize that in some other state, and the board companies will quickly learn in a few months facts about the impolitic character of arbitrary measures that it would take them years to learn in any other way.

Fire Insurance and Credit.

THE various state hardware associations have certainly made themselves solid with the credit fraternity by their formation of mutual insurance companies. In spite of the euphuistic expressions of modern life, goods remain the property of the seller until paid for. Henry Hook of Hickory Hollow buys a carload of mixed hardware from Jenks & Jonas, Chicago, on sixty days' time. In the course of a fortnight the goods are shipped and are displayed on the floor of Merchant Hook—but until that enterprising dealer digs up the value of the goods to Jenks & Jonas they are in reality the property of the latter concern.

This wholesale house in question, of course, would not allow the goods to leave their warehouses if their credit man had not taken Mr. Hook's measure and was convinced that he could and would pay for the goods when the time for payment came around. The conscientious hardware man seeking credit is free in imparting information that enables the credit man to learn about his honesty, commercial ability, etc., and the vast majority of American merchants strive to their utmost to pay their just debts, or at least honestly think they do. Granted that a man having in his store $2,000 worth of goods that are not paid for is diligent in pushing their sale, is conservative in the granting of credits, vigilant in collecting, or, to summarize, puts his brains and his energy into swinging these goods so as to meet his obligations when due—is he doing all that he can to protect the firm who are trusting him with their goods?

Not unless he has insured these goods. The goods shipped by the wholesale firm are beyond their power to protect by insurance and chances of loss by fire are much greater than if the goods were kept in the wholesaler's own warehouse and the insurance canceled. The case has been put thus by a man who has had many years' experience as a credit man:

"There are many honest, but not very able, men in business, men who would not think of paying less than 100 cents on the dollar under ordinary circumstances, but who, without fire insurance, would be able to pay only a small percentage on their indebtedness should fire destroy their stock. There are also many new ventures launched every day, in a great many instances started by men either without any known business ability or record or with a record other than first class. These are usually investigated with the greatest care by the credit man. In such investigations the insurance feature ought to be one of the most important items considered, as a risk that might be justifiable with ample insurance would be absolutely undesirable without it. Suppose two young men start in business with capital of $5,000, good characters and plenty of experience. They run along for a year and find that they have $5,000 owing them, $10,000 stock and owe $8,000. This would be a pretty fair showing for the first year. In an evil moment they decide to cut expenses by leav-

ing off the insurance 'next year'; as they 'occupy a good safe building,' etc. They may exercise more than ordinary care in looking after their own premises, but one night a fire breaks out in the basement of the store next door, and before they know it their $10,000 stock is gone. The $5,000 owing them can probably be made to yield $4,000 by good management, and they may, therefore, be able to pay as much as 40 or 50 cents on the dollar, *provided* the creditors do not take some steps to secure or collect their accounts, which some of them will be sure to do. Then bankruptcy, cost, *and more costs,* and finally the two young men pay 25 cents on the dollar and start again the world with *nothing.*"

Another credit man, in writing on this subject, says:

"There has, perhaps, been no subject to which has been attracted so much of the attention of the credit men, nor one which has so many favorable phases, as that of insuring mercantile stock against loss by fire. The queer part of the whole subject is that the merchant will insure his house, his horse, his cattle and his life, but often does not deem it necessary to protect his creditors by insuring his stock. When one comes to consider the case, there is no need in the mercantile life of the merchant so great as that of insuring his stock. If he loses his cattle, horses or house he, in a measure, only effects a loss for himself and family; if he loses his life there is no loss to any one in a business way, except, perhaps, to the insurance company. Whereas, if he loses his stock of goods, and there is no insurance on it, and if he is of the usual class of merchant—doing business mostly on the capital of his creditors—he at once makes a loss which reaches every individual creditor that he has, and with no immediate prospect of redeeming or making it good. Words are hardly strong enough to urge the retail merchant to a sense of his duty to insure mercantile stock to the best advantage. In fact, I consider a merchant, without ample insurance to cover as much as possible of the losses which are likely to occur in any business, as a cart without a horse."

The views of these two credit men but mirror the opinions of the credit world on this vital question. Unless a hardware dealer pays cash or has a large bank roll to back him up fire insurance would seem to be essential to him in a business way.

To-day hardware men can secure insurance cheaper than ever before. With mutual hardware insurance companies forming on every side the hardware dealer is not compelled to pay the arbitrary board rate, but can secure absolutely reliable insurance at a greatly reduced figure—20 per cent would be a rigidly conservative estimate, and 40 per cent a trifle optimistic one.

It is not a pleasing experience, neither is it a testimonial to your commercial acumen to see the fruits of years of toil make a spectacle for an hour. No good business man should risk his entire stock to save a few dollars. How is your state on the insurance proposition, anyway? Well, if it has not a good insurance association there are other states that have.

THE Freeport, (Ill.) Journal of April 13th states that there is a serious shortage of garden rakes and similar tools in that city.

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

IT is said that deep tin deposits have been discovered on the Onokoouk river in Alaska. It is to be feared that the fame of the placer tin deposits on this interesting northern river will be as ephemeral as those of Temescal or Harney Peak.

* * *

FROM the Portsmouth (Ohio) Times of April 22 I learn that "Sommers Brothers, Market street hardware dealers, have a new wagon to replace the one demolished in an accident on West Second street Monday."

* * *

MY collection of hardware poetry is assuming large proportions. Thanks are due to J. F. Bigelow, Worcester, Mass., for this little stanza:

> However well screened a house may be,
> Tormenting flies you're sure to see.
> Make up your mind you'll be rid of the pest
> And the Wire Fly Killer will then do the rest.

* * *

CROOKES, the well-known scientist, holds that a vacuum holding a millionth of a volume of air is no good at all, his argument being as follows: "A glass bulb similar to those used in high vacua experiments, five inches in diameter, contains more than 1,000000,-000000,000000,000000 molecules. Now, when the bulb is exhausted to the millionth of an atmosphere, it still contains more than 1,000000,000000,000000 molecules—quite enough matter to produce all the effects demanded by my hypothesis." Crookes is right. I've counted them.

* * *

MOSELY and his sight-seeing trade unionists have compared the wages of American mechanics with those of their British workmen. Hardware clerks desirous of learning how their hours, duties and salaries compare with those of British hardware clerks or ironmongers' assistants, according to the proper phraseology, will find the following data gleaned from the want advertisements of the London Hardware Trade Journal of April 10, 1903, of interest:

> WALTHAMSTOW, Junior Assistant or Improver wanted for Counter, General Furnishing and Builders'; one used to a sharp trade and able to cut keys preferred. Hours, 8 till 9; Thursdays, 1; Saturdays, 11 p. m. Good prospects for a smart man not afraid of work. Salary to commence 21/- per week. Send photo (and addressed envelope for return) with all particulars, or apply Cole and Deakin, Golden Key Ironmongery Stores, Walthamstow.
>
> JUNIOR Assistant Wanted, must be used to Black and Builders. Salary commence 26/-. Hours, 8 till 8; Thursday, 8 till 2; Friday, 8 till 9; Saturday, 8 till 10. Good reference required. Apply J. Frankling and Son, 9 and 10 Albion Rd., Woolwich.
>
> ASSISTANT OR MANAGER, 35 married; lifelong experience, General, Furnishing, Builders, Tools, Cutlery, and Black Ironmongery; good window dresser; salesman and stock-keeper; used to workmen and books; wages, 35/-. Steel, 59, Hartismere Road Fulham S. W.

From these advertisements it would appear that a hardware clerk who can cut keys and is willing to work 72 hours a week can command a salary of $5.25 weekly in Walthamstow, while in Woolrich a hardware clerk with experience in builders' hardware can secure $6.50 for 69 hours' weekly work.

When a Londoner is a thoroughly experienced hardware clerk and knows all about the business, including window dressing, he feels justified in putting a price of $8.75 weekly on his services. The American hard-

ware clerk is vastly better off than his British cousin in the matter of wages, and in most sections as regards hours also, few clerks being required to put in 72 hours weekly, with a short intermission for meals.

* * *

THERE has been quite a bit of legal procedure over a post hole auger at Reinbeck, Ia. It appears that E. H. Schmeltzer, a hardware dealer at that point, brought suit against John O'Connor for $2.00 for such an auger, for which Mr. O'Connor had refused to pay on the ground that he never ordered it. The testimony of Wm. Larsen, who was employed by O'Connor at the time of the purchase, brought out the fact that he (Larsen) had had the auger charged to O'Connor, had used it and had left it at O'Connor's place, but had failed to mention the fact to him. The case against O'Connor was dismissed, and Mr. Schmeltzer has started to collect damages from Larsen for obtaining goods under false pretenses. So far the auger has cost Larsen $7.50, and unless some settlement can be reached soon it will be much more than that. Mr. Larsen probably wishes that he had used a plain, everyday spade for digging post holes.

* * *

I ASKED a friend of mine who is well posted why there was a shovel famine and tales of the scarcity of shovels should arise simultaneous from Freeport, Ill., New York City and other places. "The reason is this," he said; "it is because so many jobbers are too timorous to invest in shovels made by independent concerns for fear they will lose their rebates. I was talking the other day with a leading western hardware jobber—a man whose private fortune is up in seven figures. Referring to a shovel made by a man of national reputation in this line, who has recently embarked in a new shovel concern, he said: 'From my experience in jobbing shovels I would say that this new shovel is the best piece of goods on the market, but I am afraid to handle it.' If all jobbers took this somewhat poltroonisn commercial policy the independents might as well furl their sales and sit on the bench, but there are some jobbers who refer shovel trust representatives to a locality where their product's principal use would probably be the banking of brimstone, and have found themselves winners by patronizing independent shovel manufacturers exclusively." Can it be, then, that the jobber who sings so plaintively about the malodorous trust is in reality its main stand-by? Do trust salesmen slap a tin tag labeled "REBATE" so close to the jobber's eye so that he can't see anything else in that particular line of work?

* * *

I RECEIVED a letter from a St. Paul stove dealer the other day stating that a customer of his had recently ordered $4 worth of repairs for an 1892 cook. While the tinner was unscrewing the rusty screws he cracked a 1x3 name plate which bore, it is true, a name well known in the stove world. The customer insisted on $1 rebate for this injury to this venerable name plate and the dealer wants to know what I think about the matter. My opinion is that if this tinner had cracked some essential part of the stove his employer should have made good, provided such part was not in such an advanced state of decrepitude that it could not be handled without breaking. Personally, I place but a trifling estimate on the value of a eleven-year-old 1x3 inch name plate, even though it bears one of the patrician names in the stove trade. I would be glad to have some of my friends in the retail trade advise me concerning the proper valuation to be placed upon this "damage" to the stove, if any; 25 cents would be pretty high, would it not?

* * *

FRANK H. MASON, consul-general at Berlin, gives the following data concerning peat as fuel: "One of the important improvements of recent years has been attained by mixing the peat pulp, as it passes through the grinding machine, with other inflammable materials—viz., bituminous coal dust or slack up to 30 per cent, anthracite culm to 40 per cent, or dry sawdust to 15 per cent. These dry, pulverized materials, when mingled with the wet peat, not only greatly enhance its subsequent value as fuel, but facilitate the drying process and render it tough, dense, elastic and capable of being pressed cold into salon briquettes of high quality."

* * *

WM F. HYDE, the man behind the guns, in the Brand Stove Co., is a hard worker. The excellence of the goods made by this company is proof that Mr. Hyde is a worker when it comes to stove construction, and the following lines show that our Cream City friend must have freely burned the midnight oil in working as a versifier. I can form a mental picture of the corrugated brow of our Badger State poet in the "fine frenzy" of metrical composition. The output of Mr. Hyde's toil is as follows:

"We'll take this time
To say in rhyme
What dealers all should know,
That profits quick
And bank rolls thick
Brand stoves will always show.
We can't stop now
To tell you how,
But take our word it's so."

I take pleasure in adding this little gem to my collection of hardware and stove poetry, and predict that the line, "And bank rolls thick," will prove more popular than "Bank whereon the wild thyme grows."

* * *

I REACHED out this past week and took a half Nelson on the following specimen of stove poetry, dragging it into my weird chamber of horrors yclept my hardware and stove poetry collection:

Coal is money in this day
Of strikes and trusts; it is no play
To keep the fire agoing.
Folks who have no "cash to burn"
To "hot-blast" stoves are sure to turn,
Their saving virtues knowing.

So, Mr. Dealer, you'll do well
To have "Cyclones" on hand to sell;
They'll make a splendid showing.
You can't help saying they're all right,
Your sales will run up "out of sight;"
They'll start your business growing.

The Eclipse Stove Co., Mansfield, O., a firm whose general reputation is excellent and whose trade-mark line of stoves and ranges is a winner, are the sponsors of this poetry.

News Siftings.

The Snyder & Baker Stove Co., Belleville, Ill., will erect an addition costing $4,200.

The Whiting Foundry Equipment Co., Harvey, Ill., have increased their capital stock from $270,000 to $400,000.

The United States Steel Corporation, Duluth, Minn., are opening vast iron ore beds in the Cascade range in northern Minnesota.

Dimont M. Caldwell and Geo. F. Potter are the incorporators of the Mephisto Fuel Saving Co., Brooklyn, N. Y., capitalized at $1,000,000.

T. J. Costello, Levi B. Harr and B. G. Williams are among the incorporators of the Fairmont Steel Co., Fairmont, W. V., capitalized at $100,000.

It is said that Chicago capitalists will establish a factory at Streator, Ill., capitalized at $60,000, for the manufacture of oil and gas stoves and ranges.

C. W. Coleman, Stephen G. Coleman and Isaiah B. Coleman are the incorporators of the Coleman Iron Works Co., Elmira, N. Y., capitalized at $3,000.

A. J. Conover of the Gem City Stove Works, Dayton, O., will probably assume the presidency of a new trust company to be established at that place.

Louis Frankel, Charles Frankel and Benjamin Rosenthal are the incorporators of the Rochester Iron & Metal Co., Rochester, N. Y., capitalized at $10,000.

It is said that W. R. Hampden, who has invented a new style of heating stove and range, will establish a plant in Omaha, Neb., for the manufacture of these goods.

John T. Dutcher, A. Judson Stone and John A. O'Conner are the incorporators of the Eastern Steel Foundry Co., 83 Montgomery street, Jersey City, N. J., capitalized at $1,800,000.

Henry Gleason, 258 Broadway, New York, is sending out a neat little advertisement in the shape of a paper circle made to represent the face of one of the Standard oven indicators made by the Helios-Upton Co., Peabody, Mass., whose merits he has been so successful in presenting to the trade.

Chas. C. Smith is president and Albert E. Knowlton is treasurer of the Boston Gas Stove & Mfg. Co., organized at Portland, Me., with a capital stock of $125,000 for dealing in stoves and heaters.

Among the handsome ranges made by the Cribben & Sexton Co., Chicago, is the Superb Universal, made of heavy polished steel with asbestos lined flues, castings of finest quality, elegant nickel and white porcelain lined oven door.

On April 28th Norman W. Bingham, Somerville, Mass., and Edward Davis of Philadelphia, were appointed receivers of the Helios-Upton Co., Peabody, Mass., manufacturers of Standard oven indicators, electrical goods, etc. The debts of this concern will exceed $235,000, it is said.

The Simpson Stove & Mfg. Co., Pittsburgh, Pa., send us a neat card giving a few reasons why dealers should sell Simpson gas ranges, which are made in a large assortment with complete and varied lines. This firm, in fact, make a range to suit every purpose and every pocketbook. They also make prompt shipments.

The Smith & Anthony Co., Boston, Mass., send us a postal showing one of their Model Hub cooks in use as an automobile. On opening the oven door in this cook you "Find the Hub turkey." In the distance is the "Hub" golf club. We suppose the chauffeur is somebody's "hubby," and that the two golfers in the distance are raising a "hub-bub." It is a catchy advertisement.

The Illinois Engraving Co., Chicago, have been forced by the increase in their business to seek new and larger quarters, and have consequently moved from their old location, 350-356 Dearborn street, to 341-351 on the same street. This concern has enjoyed a constant growth, owing to their ability to turn out high-grade photo-engraving and half-tone work with an unusual degree of promptness.

The death is announced of G. Willis Bement, secretary and treasurer of E. Bement & Sons, Lansing, Mich., manufacturers of stoves and agricultural implements. Mr. Bement died April 19 in his fifty-second year, having been stricken with paralysis while responding to a toast at a Knight Templar banquet. Mr. Bement was widely known in the stove trade and had many friends who will regret his sudden death.

The Schneider & Trenkamp Division of the American Stove Company, Cleveland and Chicago, are now occupying the five story and basement building located at 269-271 South Canal street, Chicago. These quarters were secured by them shortly after their recent fire, which destroyed their quarters at 62-69 South Canal street. They have replaced their large stock of stoves and are now in better shape than ever to take care of the trade in need of reliable gas, gasoline and oil stoves and ranges.

DE HAVEN STOVES.

The Pennsylvania Stove Co., Ellwood City, Pa., send us their handsome maiden catalogue of De Haven stoves and ranges. The Louise De Haven steel range is made of No. 14 cold rolled steel and the outside is composed of polished steel. It is full nickeled, trimmed with either brick or iron linings and is furnished with French plates.

The Queen De Haven is an all-cast range following the design of the Louise De Haven steel range.

The Colonial De Haven is a handsome, up-to-date cast range.

The De Haven Oak has 14 cold-rolled steel body, shaking and draw grate and deep ash pit, with ash pan and full nickel trimmings.

The Codom cannon stove has a deep base and a large ash pit.

The Ellwood is a two-hole stove in a pretty design on the Franklin order. One of these catalogues will be furnished the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

PROGRAM FOR N. A. S. M. MEETING.

The program for the thirty-second annual meeting of the National Association of Stove Manufacturers is out and promises a most interesting and profitable meeting. The subjects for discussion are most interesting. It is true that the matter of "Consolidation" is pretty thoroughly threshed out straw, but if any of the ingenious gentlemen whose bonnets are hives for promoting bees have anything new to say stovedom will listen. "Costs" is always a theme of vital importance and if discussion at this meeting can show that the system now in use is a false basis for their computation every manufacturer will find the new information gained an ample recompense for his attendance. "Equalization" is a knotty question and manufacturers will most cheerfully acquiesce in schemes of equalizing after they have been impartially discussed by the largest number of interested parties. The fraternity are generally interested in "Cash Discounts," "Molding Machines" and "Polishing Machines."

"Cooking Exhibits" are a heavy expense and the question of the good they do should prove interesting.

It is highly desirable that some plan for the "Co-Operation of District Associations" be worked out.

While an old, old question, that of "Breakage in Transit," is a vital one. There is something in the air of a freight car that gives the average stove that broken feeling in the knee joints, and the loss to the trade, to say nothing of the embittered feeling too often engendered, mounts up to appalling figures.

The retailer is vitally interested in "Catalogue House Competition," and he frequently asks the stove salesman, "What are you people doing to help us in our battle with the mail order houses? The National Hardware Association is co-operating with us along this line—what are the National Association of Stove Manufacturers going to do?"

This important question will receive careful attention at this meeting.

W. J. Myers deserves encomiums for his researches into the question of exporting stoves. The fraternity are awakening to the possibilities awaiting the American stove abroad, and among cognate topics none is more important than that of properly wrapping it up so it will stand the buffets of sea voyages, continental trains and even passages on mule or camel back. The question of "Packing Goods for Foreign Shipment" should consequently prove one of the best discussed at the meeting. The program in full is as follows:

ORDER OF BUSINESS.

Calling the Roll.
Reading the Minutes.
Election of New Members.
President's Address.
Treasurer's Report.
Secretary's Report.
Communications.

SUBJECTS FOR CONSIDERATION.

Consolidation:—
Are there any new phases of this subject?

Costs:—
Do the changes in the stove business, which have been made since the present form was adopted, justify any change in the methods of computing costs?

Equalization:—
What is the fairest method for determining the relative value of different goods? Is it advantageous and beneficial to the stove manufacturers?

Cash Discount:—
Is it desirable to have a uniform cash discount of 2 per cent in all districts? What is the experience of the districts that have reduced the cash discount from 5 to 2 per cent?

Cooking Exhibits:—
Is it not a great mistake for leading manufacturers to encourage this expensive method of advertising their goods? Should it not be abolished?

Molding Machines in Stove Foundries:—
Are they desirable, and can they be used with profit to the stove manufacturer?

Polishing Machines:—
Can they be used with profit to the stove manufacturer? Is the work turned out equal to work done by hand in the ordinary way?

Traveling Salesmen:—
Which is the most desirable from a serviceable and profitable point of view: The experienced or professional salesman who demands a large salary and is ready to change at any time to the highest bidder or the young man whom you may have educated and started out on the road?

Co-operation Between District Associations:—
To what extent is this possible, and how can it be brought about?

Breakage in Transit:—
What can be done to lessen the loss from breakage in transit?

"Catalogue House" Business:—
What effect is it having on the general trade, and what can be done to help the retail dealer along this line?

Packing Goods for Foreign Shipment:—
The complaint is universal that Americans do not understand this part of their business, and are constantly losing desirable trade on that account.
What is the remedy?

Deceased Members.
Welfare of the Association.
Unfinished Business.
New Business.
The Election of Officers.

IT IS BLACK.

Mammoth Cave is a funny place where the fish and the crickets; the beetles and the rats are all blind. Of what use would sight be in the perpetual ebon gloom of the dried up channel of that subterranean river?

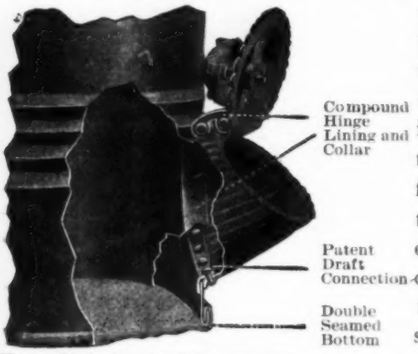
A certain lady who had had her guide blow out her lantern and leave her alone in Washington's Dining Hall in this cave humorously said that after sitting alone for five minutes in the Stygian darkness she knew how that man Wynn made his Black Silk stove polish so black. He simply collected great quantities of Mammoth Cave atmosphere and boiled it down. This is, of course, a *canard*. The Black Silk Stove Polish Works, Sterling, Ill., use those ingredients whose mixture results in an ebon product whose intense blackness makes it a winner for polishing stoves. They send us a booklet describing various of their products, including Black Silk stove polish, Black Silk liquid stove polish, Black Silk steel range gloss and White Silk metal polish. Every box or can containing their goods is stamped with the features of Lewis D. Wynn, and owing to the enormous demand for their goods all

over the country there are hundreds of thousands of people who would know this Sterling hustler if they should meet him at Dahlonega, Ga., or Onokoouk, Alaska. One of these circulars will be forwarded the trade on application. When writing for same kindly add "Saw it in THE AMERICAN ARTISAN."

COLE'S ORIGINAL AIR-TIGHT.

The Cole Mfg. Co., 3218-3238 Western Ave., Chicago, are manufacturers of Cole's air-tight stoves, which have many points to recommend them to the careful attention of the trade. These heaters have a patented draft built on the plan of a valve in a pump cylinder. This draft is water tight. They also have a patented steel collar connection for the draft to the stove body, and a patented steel collar stamped out from the lining to protect the draft joint. The double seamed steel bottom is air-tight and water tight. A top feed door is another feature. This firm gives their agents 7 different styles of stoves and a full line of sizes in each style.

Shows the Water-Tight Lock Seam Body and Double Seamed Bottom.



Shows Patented Draft Construction.

GOOD LUCK SPECIAL STEEL RANGES.

The Pittsburgh Stove & Range Co., Pittsburgh, Pa., send us a circular calling attention to their Good Luck Special steel ranges for hard or soft coal or wood.

The outside construction of these ranges is the best polished, annealed and patent leveled blued steel, 18 gauge. The inside is of the best full cold-rolled, patent leveled and annealed range steel, 14 gauge. All parts that are exposed to the direct action of the fire are of double thickness, with an asbestos mill board between, all securely riveted together.

The ovens are made of 14-gauge wrought steel and are extra large and high. The top oven plate is fully protected from the action of the fire.

The bottom oven plate is supplied with cast iron braces to prevent buckling. This insures a level oven plate at all times.

Flues and dampers, all sizes are of the sheet flue construction. The flue box is made of heavy pressed steel, reinforced to insure the greatest durability. The direct draft damper, operated from the top, insures a quick fire.

The fire box is of good capacity, the fixtures being interchangeable for all sizes.

For burning coal a duplex grate is used. Flat dump and shaking grate can be furnished instead of the duplex if specified. Twenty-four-inch wood can also be burned in this range.

The nickeled parts include the edge band, oven door frame and handle, oven door panel and name plate, wood doors and ash pit doors.

One of these circulars will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

MARITIME STOVE FOUNDERS.

The Maritime Stove Founders' Association held their annual meeting in St. John, N. B., recently. The following officers were elected: President, James Hillis, Halifax; vice-president, Frank Wilson, Yarmouth; secretary-treasurer, W. S. Fisher, St. John.

BOYNTON'S RANGE CATALOGUE.

The Boynton Furnace Co., 147-149 Lake street, Chicago, and 207-209 Water street, New York, send us their pretty 1903 range catalogue.

Boynton's double oven Lakewood range, brick set and portable form, is a most attractive double oven range. It is of modern construction in every particular; has been thoroughly tested and has unequaled facilities for cleaning the flues (the bottom of the ovens being removable), which is so essential to good baking.

These ranges are easy to manage, perfect cookers, quick bakers, have ample hot-water capacity and are thoroughly first class in every particular.

They have extra size box water back, located in back end of fire box, which connects with boiler on either right or left of range; also sifting grate and ash pan and patent triangular revolving grate, having a novel and ingenious attachment to prevent grate burning out.

It has one center smoke pipe connection and direct draft, operated from outside of range.

The castings are heavy, the boiling surface large.

It is fitted with lower hot closets, canopies or plate shelves, as desired.

Boynton's single oven Niagara range, in brick set or portable form, is a most attractive single-oven range. It is up to date in every particular, having unequaled capacity for baking, broiling and hot water; it embodies the latest device to insure ease in cleaning flues; has a patent ventilating damper in smoke pipe to remove odors when cooking, sifting grate and ash pan, and patent triangular revolving grate, having a novel and ingenious attachment to prevent grate burning out. It can keep fire for months without rebuilding.

Boynton's single-oven Newport range, in brick set or portable form, is fitted with fire box on the right or left hand side of oven, as may be desired.

The water-back is large and powerful and is fitted with solid brass pipes and ground couplings. The broiling door is large and convenient for broiling and feeding purposes.

It has the patent triangular revolving grate, with a novel and ingenious patented attachment to prevent burning out, and extra large ovens.

Boynton's 1903 Baltimore fireplace heater, fitted with round, square or French frame, of standard size, has all the latest improvements—anti-clinker grate, shaken from outside, direct and indirect draft damper, dust damper, ash pan, nickel trimmings, large illuminating surface, basket grate and reservoir made in sections, and can be repaired without removing it from the fireplace or disturbing the setting of the heater.

This heater is adapted to setting in fireplace or opening in the mantel, and thoroughly heating the room in which it stands, also one, two or three rooms, directly above, by hot-air pipe connections in the chimney flue.

The revertible flues and smoke-pipe attachment are so arranged that flues can be thoroughly cleaned without removing heater from the fireplace.

One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

DON'T YOU WANT ONE?

Eliphalet Adzechisel, the well-known hardware dealer, put Mr. Builder's letter in his pocket, jumped on a trolley car and went over to see him carrying the letter in his pocket. On his way he read the Daily Hooter and clipped out an item about an advance in tin plate. On alighting from the car he ran into an old schoolmate, who handed him a business card. As he was passing the gas works he dropped in, paid his bill and took a receipt, etc., etc. There is nothing particularly romantic or interesting about Mr. Adzechisel's little trip, as it is duplicated every day by thousands of hardware dealers. We narrate it simply to emphasize the handiness of a book for carrying all these memoranda. Such a pocketbook, made of durable material, of convenient size, and with an inside pocket for stamps is being given to dealers by the Prentiss Vise Co., 44 Barclay street, New York. That they have been considered a good thing by the trade is shown by the fact that very few of them are left. Dealers who write promptly to this vise firm, enclosing a business card, should be able to secure one. When writing kindly add, "Saw it in THE AMERICAN ARTISAN."

"LAUGH AND THE WORLD LAUGHS WITH YOU."

Any hardware man, stove man, tinner, hardware clerk or even such insignificant factors in the hardware world as jobbers or manufacturers who have a stray postal within reach can get all kinds of laughs from the silent smile to the cachinnatory guffaw by writing the words "Rochester Radiator Co., Rochester, New York" on one side thereof and "Send me Fun and Facts. Saw it in THE AMERICAN ARTISAN," with their name and address on the other side of the postal card.

This booklet contains over 1,000 puzzles, recipes, conundrums, etc. Some are brand new, others were probably the inspiration of the ditty—

"In the days of old Rameses
This joke it had paresis."

The jokes and information are of all kinds, as per following extracts:

"Jagsen got up after a night's debauch, picked up the hair brush instead of the hand glass, and remarked, 'Gracious, but I need shaving.'"

After reading a joke like this true friends of the Rochester Radiator Co. should give thanks that the office of that concern is more than two blocks from some sections of the country—as thereby the average homicidal statistics for 1903 will be kept down.

Again we learn from this book that "Freckles, like red hair, are an indication of an ardent temperament." Here is a joke dealers will appreciate more than their subordinates. "A butcher hired a boy at $1.50 a week. The boy asked, 'Will I have a chance to rise?' 'Oh, yes, I shall expect you to be up at five o'clock every morning.'"

There are many jokes in this book that are better than these—others strange to say that are worse, but on the whole they will average up far above those you pay 50 cents to hear on the vaudeville stage.

"ROGERS."

If a hardware dealer were about to open a new store it wouldn't matter to him whether his name was Rogers or Richards or Roper; either is a good, honest name of respectable pedigree and honest genealogy—but come to plating silver and one beholds a bloated trust with $22,500,000 liabilities raising heavens and earth in its desperate endeavors to scoop in all the Rogers there are. It is doubtful if a tow-headed youth answering to the name of Rogers could hardly pass along the streets of Meriden, Conn., without danger of being abducted by the emissaries of this combine.

Some of the firms that were swallowed by the silverware trust were the Meriden Britania Co., Meriden Silver Plate Co., Meriden Cut Glass Co., Holmes & Edwards Silver Co., Derby Silver Co., Barbour Silver Co., Wm. Rogers Mfg. Co., Rogers & Brother, Rogers & Hamilton, Rogers, Smith & Co., Simson, Hall & Miller Co., Wilcox Silver Plate Co., Watrous Mfg. Co., Middletown Plate Co., Manhattan Silver Plate Co., Forbes Silver Co., C. Rogers & Bros., Norwich Cutlery Co.

It will be observed that they gulped down five "Rogers" firms, each of whom owned several "Rogers" trade-mark brands; but with all their voracity for the "Rogers" family, they have been unable to abduct, seduce, coax, kidnap, bully, crush or whatever is the right word to use, the only genuine 24-carat simon-pure "Rogers"—viz., the Simeon L. & George H. Rogers Co., Hartford, Conn., whose Simeon L. and Geo. H. Rogers are sons of the late Simeon S. Rogers of 1847 Rogers reputation. This concern will furnish a modern, up-to-date line of silver plate ware not made by a trust that will strip as much silver as any Rogers brand on the market. The trade should write them for one of their cartoons showing the International Silver Co. as an inflated octopus dallying with a bunch of "Rogers" trade-marks, including those taken in with the United States Silver Company, and when writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The Hardware Record.

American Hdw. Mnfs. Assn.
Pres., F. R. Plumb, Philadelphia.
Vice-Pres.—F. S. Kretzinger, Ft. Madison, Ia.; J. C. Birge, St. Louis. Geo. W. Corbin, New Britain, Conn.
S.-T., F. D. Mitchell, Pittsburg.
Ex. Com., Robert Garland, Pittsburg; Henry B. Lupton, Pittsburg; N. A. Gladding, Indianapolis; W. S. McKinney, Allegheny; F. L. Clark; Birmingham; C. W. Asbury, Philadelphia; G. N. Landers, New Britain; C. H. Holt, Cleveland.

Arkansas Retail Hdw. Dealers Assn.
Pres., John M. Pitman, Prescott.
1st V.-P., J. F. Maxey, Ozark.
2d V.-P., T. B. Stewart, Newport.
Sec., C. E. Taylor, Little Rock.
Ex. Com., H. Williams, Hot Springs; J. H. Boicourt, Little Rock; E. E. Mitchell, Morrilton; W. M. Graham, Clarendon; R. F. Roys, Russellville.

Chicago Retail Hdw. Dealers' Assn.
Pres., D. McLaughlin.
V.-P., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., J. L. Smith.

Hardware Merchants' and Manufacturers' Assn. of Philadelphia.
Pres. William C. Peters.
V.-P., Thomas Devin.
Sec.-Treas., T. James Fernley
Directors, W. W. Supplee, H. McCaffrey, E. S. Jackson, W. C. Peters, S. Disston, E. Fisher, J. H. Ritter, T. Devlin, T. J. Fernley.

Illinois Retail Hdw. Dealers' Assn.
Pres., Charles H. Williams, Streator.
V. P., W. T. Gormley, Chicago.
Sec., L. Nish, Elgin.
Treas., Geo. A. Engelhardt, Chicago.
Ex. Com., Charles H. Williams, Streator; W. T. Gormley, Chicago; L. Nish, Elgin; Geo. A. Engelhardt, Chicago; William Bittel, Peoria; F. F. Porter, Chicago; H. G. Cormick, Centralia; H. N. Murphy, Galesburg; C. Mauer, E. St. Louis; R. G. Scheurer, Vandalia.

Indiana Retail Hdw. Dealers' Assn.
Pres., E. M. Bush, Evansville.
1st V.-P., A. N. Shidler, So. Bend.
2d V.-P., W. B. Shipley, LaFayette.
Sec., M. L. Corey, Argos.
Ex. Com., M. L. Lewis, Marion; W. P. Lewis, New Albany; Charles Boonshat Petersburg; E. M. Bush, Evansville; M. L. Corey, Argos.

Indian Territory Retail Hdw. Assn.
Pres., J. G. Smith, Canadian.
1st V.P., Fred Parkinson, Wagoner.
2d V.-P., E. C. Stretch, Vinita.

Iowa Retail Hdw. Dealers' Assn.
Pres. S. R. Miles, Mason City
V.-P., L. Lindenberg, Dubuque.
Sec., H. S. Vincent, Ft. Dodge.
Treas., A. C. Vieth, Oakland.
Members Exec. Com., Jacob Seither, Keokuk; J. F. Doty, West Liberty; L. Lindenberg, Dubuque; S. R. Miles, Mason City; G. C. Paulson, Newnall; Paul DeVol, Council Bluffs; C. S. Barger, Albia; L. H. Kurtz, Des Moines; C. R. Keating, Mt. Ayr; L. A. Gnam, Carroll; C. E. Haas, LeMars.

Kansas Hardware Dealers' Assn.
Pres., Oscar Roehr, Topeka.
V.-P., E. J. King, Logan.
Sec.-Treas., J. A. Cole, Topeka.
Ex. Com., F. W. Bartlett, Kansas City; T. H. Kinlry, Beloit; J. M. Walters, Robinson; J. H. Hamilton, Arkansas City; T. J. O'Neill, Osage City.

Kentucky Retail Hardware and Stove Dealers' Association.
Pres., W. T. Oldham, Mt. Sterling.
1st V.-P., W. S. Shacklett, Fulton.
2d V.-P., Jos. C. Kirchdorfer, Louisville.
Sec., Paul Wagner, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.
Pres. T. Frank Ireland, Belding.
V. Pres., John Popp, Saginaw.
Sec., A. J. Scott, Marine City.
Treas., H. C. Weber, Detroit.
Ex-Com., J. B. Sperry, Port Huron; F. A. Turner, Caro; J. G. Patterson, Detroit; F. S. Carlton, Calumet; S. E. Hunt, Detroit; Samuel Winchester, Jackson; Fred S. Cook, Fowlerville; C. E. Pipp, Otsego; A. Harshaw, Delray; A. J. Scott Marine City.

Minnesota Retail Hardware Assn
Pres., W. H. Tomlinson, LeSueur
V.-P., H. S. Cleveland, Minneapolis.
Treas., W. E. Barto, Long Prairie.
Sec., M. S. Matthews, Mnpls.
Exec. Com., W. H. Tomlinson, Le Sueur; H. S. Cleveland, Minneapolis; F. E. Hunt, Red Lake Falls; Benj. F. Kernkamp, St. Paul; C. H. Hornburg, New Ulm; J. Cowing, Alexandria; C. H. Casey, Jordon; C. F. Ladner, St. Cloud; J. Schmidt, Wabasha; A. T. Stebbins, Rochester; J. McGuire, St. Paul.

Missouri Retail Stove and Hardware Dealers' Association.
Pres., Tayler Frier, Louisiana.
V.-P., E. L. Wachter, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., J. W. Poland, Carrollton; F. N. Kannsteiner, St. Louis; W. T. Shoop, Richmond.

National Hardware Association.
Pres., R. A. Kirk, St. Paul.
1st V.-P., John C. Koch, Milwaukee.
2nd V.-P., Brace Hayden, San Francisco.
Sec.-Treas., T. James Fernley, Philadelphia.
Ex. Com., John Freeman, Detroit; Samuel B. Bigelow, Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham; R. M. Dudley, Nashville; W. S. Wright, Omaha.
Advisory Board, W. W. Supplee, Philadelphia; H. H. Bishop, Cleveland; John Bindley, Pittsburg; R. W. Shapleigh, St. Louis.

Nebraska Retail Hdw. Dealers' Asn.
Pres. C. A. Peterson, Oakland.
1st V.-P. Nathan Roberts, Omaha.
2d V.-P. Alex Meyer, Hastings.
3d V.-P. Frank Hecker, Friend.
Sec.-Treas., Harry Hall Lincoln.

National Retail Hdw. Dealers' Asn.
Pres., W. P. Bogardus, Mt. Vernon, O.
V.-P., C. H. Miller, Pennsylvania.
Sec., Treas., M. L. Cory, Argos, Ind.
Ex. Com., H. C. Cormick, Centralia, Ill.; Sharon E. Jones, Richmond, Ind.; T. F. Ireland, Belding, Mich.; L. Lindenberg, Dubuque, Iowa; A. T. Stebbins, Rochester, Minn.

N. Dakota Retail Hdw. Dealers' Asn.
Pres., H. N. Joy, Hamilton.
1st V.-P., H. F. Emery, Fargo.
2d V.-P., Frank Lish, Dickinson.
3d V.-P., H. B. Allen, Jamestown.
Sec., C. N. Barnes, Grand Forks.
Treas., W. H. Pinkerton, Lakota.
Ex. Com., E. E. Elliott, Sanborn; H. F. Strehlow, Casselton; Hurbert Harrington, Fargo.

Ohio Hardware Association.
Pres., W. P. Bogardus, Mt. Vernon.
V.-P. J. F. Baker, Dayton.
Cor. Sec., D. R. Burr, Piqua.
Fin. Sec., W. C. Jones, Columbus.
Treas., H. A. Waller, Ravena.
Ex. Com. F. A. Powers, Norwalk; Geo. Harke, Cincinnati; E. Fisher, Wapakoneta; J. C. Snyder, Ironton; E. M. Potter, Cleveland.

Pennsylvania Retail Hdw. Assn.
Pres., Geo. L. Moore, Brownsville.
V.-P., Geo. J. Rudolph, Pittsburg.
Sec., J. E. Digby, McKees Rocks.
Treas., B. A. Maggine, Braddock.
Ex. Com., E. E. Lyon, Greensburg; C. N. Savage, California; B. A. Maggine, Braddock; C. O. Shroyer, Dawson.

St. Louis Stove Dealers' Assn.
Pres., Wm. H. Hahn.
1st V.-P., G. A. Pauly.
2d V.-P., E. L. Wachter.
Sec., Louis Boehl.
Treas., E. Wertz.

Southern Hardware Jobbers' Assn.
Pres., F. A. Heitman, Houston.
1st V.-P., Col. B. F. Eshelman, New Orleans.
2d V.-P., John Donnan, Richmond, Va.
Sec., C. B. Carter, Knoxville.
Ex. Com., W. M. Crumley, Atlanta, Ga.; O. B. Barker, Lynchburg, Va.; Chas. H. Ireland, Greensboro, S. C.; C. S. Speer, Hot Springs Ark.

Texas Hardware Jobbers' Assn.
Pres., Jas. Moroney, Dallas.
1st V.-P., J. C. Bering, Houston.
2d V.-P., J. Burnsides, Ft. Worth.
Sec.-Treas., R. Bell, Weatherford.
Ex. Com., G. A. Trumbell, Dallas; F. A. Heitman, Houston; E. S. Hughes, Abilene; J. J. Dickerson, Paris.

Wisconsin Hdw. Dealers' Assn.
Pres., L. Findiesen, Green Bay.
V.-P., H. L. McNamara, Janesville.
Sec.-Treas., C. A. Peck, Berlin.
Ex. Com., J. Kornelly, Milwaukee; E. H. Ramm, New London; H. S. Scofield, Sturgeon Bay; R. Murdoch, Beloit.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 36 to 40 inclusive.

It is said that a new cutlery works will shortly be started at Morris, Ill.

The Bailey-Donk Hardware Co. succeed H. M. Bailey at Sheffield, Ala.

The Wolverine Saw Co. are a new Detroit, Mich., concern capitalized at $5,000.

White & Eisenmann are a new hardware firm at 124 Chambers street, New York.

The Eagle Beak Wrench Co. are a new Chicago concern capitalized at $100,000.

The Fairweight Standard Scale Co., Danville, Ill., have increased their capital stock from $16,000 to $100,000.

The Simpson Mfg. Co., manufacturers of washing machines at Menasha, Wis., will shortly remove to Ladysmith, Wis.

The Norvell-Shapleigh Hardware Co., St. Louis, Mo., have increased their capital stock from $1,000,000 to $1,500,000.

Herman Bloom, Samuel Bloom and Jennie Bloom are the incorporators of the Fairbanks Safe Co., Newark, N. J., capitalized at $10,000.

George L. Maltz, A. M. O'Brien and John S. Cort are the directors of the National Bolt & Nut Co., Pittsburg, Pa., capitalized at $50,000.

Wm. A. Beatty, John C. Bules and James M. Sutherland are the incorporators of the St. Louis Stove & Mfg. Co., St. Louis, Mo., capitalized at $50,000.

The death is announced of Charles B. Beall, president of the Beall Shovel Co., Alton, Ill. He was in his 60th year and leaves a widow and eight children.

F. C. Marshall is president and N. W. Bingham is treasurer of the Peat Fuel Co. of America, incorporated at Portland, Me., with a capital stock of $1,000,000.

J. W. Marvin, F. W. Stewart, W. H. Sawyer, Geo. N. Smith and E. J. Guliek are the incorporators of the Hillsdale Steel Boat Co., Hillsdale, Mich., capitalized at $60,000.

D. B. Klopfenstein, J. A. Guest, Chas. Bannister and L. W. Gaston are the incorporators of the George Stewart Hardware Co., Burlington, Ia., capitalized at $15,000.

Royal A. Dietrich and Frank W. Shepherd are the incorporators of the Kimball Dietrich Hardware Co., Elgin, Ill., capitalized at $10,000 for carrying on a hardware business.

A heavy fire visited Columbus, O., on April 25. Among the establishments destroyed was that of the Tallmadge Hardware Co., whose loss is $40,000, with insurance of $30,000.

The directors of the Kansas City Bolt & Nut Co., Kansas City, Mo., held an election on April 20 and elected the following officers: J. H. Sternberg, president; H. N. Sternberg, vice-president; H. R. War-

ren, secretary and treasurer, and Solomon Stoddard, manager.

P. Corbin, Charles M. Jarvis, Charles Glover, Howard H. Hart and Theodore E. Smith are the incorporators of the Corbin Screw Co., New Britain, Conn., capitalized at $400,000.

Emil Schott, for thirty-four years in the hardware business at 818 Lorain street, Cleveland, O., died on April 24th. The funeral was held April 27th. He leaves a widow and six children.

J. D. Anderson, H. F. Busch, C. J. Wagner, H. J. Wagner and J. B. Whitten are the incorporators of the Southern Wood & Handle Co., Memphis, Tenn., incorporated with a capital stock of $5,000.

The New Castle Forge & Bolt Co., New Castle, Pa., are erecting two new buildings, one 800x300 feet in dimensions, and the other 40x300 feet. This will be equipped for the manufacture of bolts and nuts.

N. J. Basch, Ike Landman and N. B. Oppenheim are the incorporators of the N. J. Basch Co., Danville, Ill., who will manufacture and sell a variety of goods including cutlery. They are capitalized at $40,000.

The Hubbel & Staples Hardware Co., Norwalk, Conn., had a lively time on the evening of April 21, owing to an oil heater being kicked over. The oil promptly took fire and the store became full of smoke and flames, although small damage was done.

The Queen Mfg. Co., South Glens Falls, N. Y., capitalized at $25,000, have been incorporated for manufacturing the Ormsby patent dust pan and other novelties. Geo. B. Eddy is president, J. C. Austin is first vice-president, Frank K. Eddy is secretary and Wm. D. Eddy is treasurer.

Dunham, Carrigan & Hayden, the well-known San Francisco, Cal., jobbers, have purchased the majority interest in the Engineers' Supply Co. of Seattle, Wash. San Francisco will use this firm as an outlet for their machinery supply goods, and will not establish a new competitive business with the Seattle houses

The Peters Cartridge Co. have been forced by the heavy growth of their Eastern business to remove their New York office from its present quarters at 80 Chambers street to new and enlarged quarters at 98 Chambers street. T. H. Keller, the manager of their Eastern department, has built up an unusually large business.

Frank P. Wells, Chas. M. Hurst and Samuel R. Gher are the incorporators of the United States Wire Mat Co., Decatur, Ill., capitalized at $20,000 for the manufacture of wire mats and metal goods. This firm have been in operation for a number of years, and the United States wire mats are widely and favorably known to the trade.

Chas. E. Miller has resigned his office as president of the Pacific Hardware and Steel Co., San Francisco, Cal., and at a recent meeting of the directors A. L. Scott was elected in his place. The officers of the corporation as they now stand are: A. L. Scott, president; H. J. Morton, first vice-president; Joseph Sloss, treasurer and second vice-president, and D. H. Kane, secretary. The directors are A. L. Scott, H. J. Morton, Joseph Sloss, D. H. Kane, E. A. Selfridge, Major T. K. Gibbs, Leon Sloss and G. H. B. Martin.

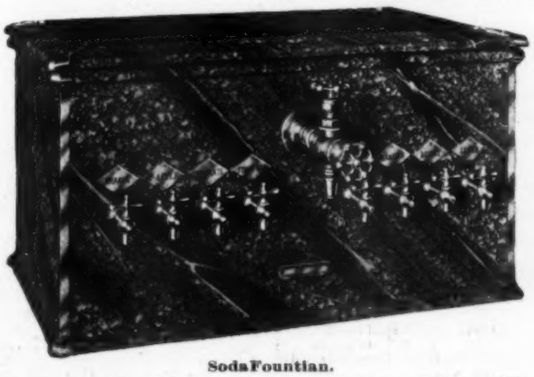
The Sitterly Novelty Works, Auburn, N. Y., are distributing leaflets to the trade calling attention to their specialties. These include the King carpet stretcher, King hammer and puller, teapot knobs, tack pullers, spoon holders, King clothes line holder, kettle cover holder, King broom and mop holder, King chopping knife, shear sharpener and carpet beater.

The Joseph Dixon Crucible Co., Jersey City, N. J., send us a circular showing Dixon's lumber pencils, metal markers, crayons and carpenters pencils. This firm's graphite productions are: Graphite crucibles, all sizes and for all purposes, carburet of iron stove polish, fine office and drawing pencils, felt erasive rubber, pure flake lubricating graphite, special graphite No. 635, graphite machine and gear grease, graphite axle and wire rope grease, graphited oil, graphite cup greases, graphited wood grease, silica graphite paint, electrotyping graphite, graphite facings, graphite pipe joint compound, crucible clay and graphite mixture, graphite for linotypes, yacht plumbago, cycle and motor chain graphite, Graphitoleo, brazing graphite, traction belt dressing, solid belt dressing, graphite brushes and resistance rods, graphite products for electricians.

Judge Andrew Kirkpatrick in the United States circuit court at Trenton, N. J., April 27, made an order decreeing that R. Lindsay Coleman, Albert A. Pope and John A. Miller, as receivers in the case of Elliott Mason and others vs. the American Bicycle Company, be authorized to accept the offer of the reorganization committee for the sale of the company's property. The complainants are Elliott Mason, Emma B. Stimson, William A. Reed, Frederic P. Olcott, Colgate Hoyt, George F. Crane and F. S. Smithers. Judge Kirkpatrick stated that the offer of William A. Reed and the others for the personal property of the company is equal to a fair value of the property, and therefore to the advantage of the creditors and stockholders. Upon the surrender for cancellation of receivers' certificates to the amount of $500,000 and upon making a cash payment of $3,500,000 the receivers must execute and deliver bills of sale.

SODA FOUNTAINS.

The Acorn Brass Mfg. Co., Chicago, are offering the trade the imitation marble soda fountain shown herewith. Their new system of coolers keeps the



Soda Fountian.

soda ice cold with small consumption of ice. They are offered to the trade at attractive prices.

PORTABLE PLATFORM SCALE.

The Osgood Scale Co., Binghamton, N. Y., are manufacturers of the portable platform scale shown in the accompanying cut. These scales have brass beam and sliding poise and are adapted to all kinds of general weighing. It is hardwood throughout, is painted blue and is gilt striped. The beams and sliding poise are fine brass highly polished. All pivots and beams are the best hardened tool steel. It is very carefully and accurately sealed. This line of scales are being furnished in new patterns which include every improved feature in scale building. This firm would be pleased to send catalogue to the trade on application. When writing for same kindly add, "Saw it in THE AMERICAN ARTISAN."

Portable Platform Scale.

COMBINATION MACHINE FREEZER.

North Bros. Mfg. Co., Philadelphia, Pa., are manufacturers of the combination machine freezer shown herewith. This freezer enables ice cream manufacturers to make up different quantities of cream or ices in one machine by the employment of cans and tubs of varying sizes.

Combination Machine Freezer.

The illustration shows machine with 40-quart can and tub. Smaller sizes are used by having extension pieces or couplings to reach from gearing to dasher and can of each 18, 24 and 32 quart sizes. In order to avoid trouble or delay in adjustment for different sizes of tubs, each of the smaller tubs is made with an iron band at bottom, the outside diameter of which is the same as that of the largest tub, so that any of these tubs can be put in machine, pushed up against stops on baseplate and thus in line with gearing of frame. The coupling to connect gearing to can has clutch at each end, one of which engages with clutch on lid of can and the other with clutch on lower bevel gear. The shaft of dasher passes through coupling and engages with upper gear. As the upper and lower bevel gears turn in opposite directions, the can and dasher will do likewise. The clutches in gearing are operated by one small lever at top of machine. In position shown the gearing is engaged with can and dasher to operate freezer. When lever is thrown in opposite position the clutches are separated so that tub with can and dasher may be readily removed. The lever locks the clutch in either position. The arrangement of parts is such that the gearing is never exposed at any time, not even during the change of tubs and cans. The cover prevents any possible injury to operator or the gearing becoming clogged with dirt or ice and salt. The dasher is of the well-known Seaman style, with horizontal beaters, and has metal scrapers on each side and at bottom.

INAUGURATION OF BOWLING SEASON.

The Chicago Retail Hardware Dealers' Association inaugurated their bowling season by a tournament on Kinney's alleys, 1009-1011 West Lake street, from 3 to 6 p. m., Wednesday, April 29. A number of spirited contests between picked teams of hardware men marked the occasion. A couple of these games were as follows:

Amateurs—		Professionals—	
E. Sanders	143	Geo. Engelhardt	149
W. E. Lyman	148	H. E. Gnadt	142
J. Smith	124	C. Dalstrom	164
H. Fehr	107	J. Herzog	99
"Pop" Bennett	79	G. R. Lott	44
Total	601	Total	588

Professionals—		Amateurs—	
Engelhardt	133	Sanders	144
Gnadt	114	Lyman	130
Dalstrom	136	Smith	127
Herzog	75	Fehr	108
Schanze	132	Bennett	132
Lott	63	Robinson	90
Gormley	110	Stephens	93
Total	763	Total	824

HAVE SECURED GROUNDS FOR PICNIC.

Martin Engelhardt, Fred Ruhling, Hans Fehr, F. H. Schanze and Chas. Dalstrom, the committee appointed by the Chicago Retail Hardware Dealers' Association to select the picnic ground for the association this year, after careful consideration of the different groves in the vicinity of the city, have decided on Northwestern Park, seventeen miles from the city on the Northwestern railroad. This park is one of unusual beauty. It has ample boating and fishing facilities, dancing pavillion, etc., and one of the features in its favor was that while all other parks surrounding Chicago were dry last year, there was a beautiful growth of green grass in this park. Indications point to the forthcoming picnic of this association, which

will be held some time in July, as the most successful in their history.

BALL BEARING WASHERS.

The 1900 Washer Co., Binghamton, N. Y., send us a catalogue calling attention to their ball-bearing washers. The tub is made of the best material and hooped with galvanized wire, electric welded hoops, which are embedded, by a special process, into grooves in the tub, and clamp the staves so tightly that it is impossible for the rust to get under them and eat them up. The legs are symmetrical and nicely finished in natural wood, and are united at the top by heavy malleable castings and strongly braced with iron frame below. Through the heavy castings attached to the tops of the legs and up through the tub, runs a heavy cold rolled steel rod. This rod is threaded at the bottom and firmly screwed down through the castings, and is reinforced at the end by a nut which is drilled and riveted to the rod. On the bottom of the tub there is a large iron spider running in three directions, nearly to the chimes or edges of the tub, and this is firmly screwed to the bottom. The center of this casting is very heavy, and screwed into its upper side is a pipe which runs up through the tub, forming a stuffing box for the steel rod before referred to, to run through. On the inside of the bottom of the tub there is a blind nut that turns down, thus firmly securing the bottom to the casting; and between the joints is heavy rubber packing which makes them water tight. On the lower side of this casting there is a large, round head turned, and in it and its counterpart is a perfect bearing in which are two steel tracks and twelve bicycle balls, thus forming a perfect ball-bearing. This makes it turn like a bicycle wheel.

STEEL SLEDS.

The "bob" sled of our youth is evanescent. It was made on one of two lines, either sacrificing safety or speed. The safe sleds were made of heavy planks and were heavy; the speedy sleds were liable to break down any time they struck a snag.

The steel sled, combining speed and safety, is coming into extraordinary demand, and the sleepy dealer who orders one along in November, when the small boy comes around and asks why he is out of them, will find himself losing much valuable trade. The Norris & Loring Hardware Co., Cedar Rapids, Ia., exclusively wholesale, are issuing a catalogue showing a very attractive line of steel sleds in colors, which they will send to dealers so they can order now, and be prepared for next winter's trade.

GOOD DEMAND FOR WASHERS.

Sam T. White, secretary-treasurer of the White Lily Washer Co., Davenport, Ia., was a recent caller at THE AMERICAN ARTISAN office. Mr. White was en-route to Davenport from the Toledo office of this concern, where their R. P. Searle has done an unusually large business. This firm are kept busy filling their large volume of orders.

BUSINESS CHANGES.

NEW FIRMS.

Bergeh, N. Y.—George R. Fassett.
Boise, Idaho.—Kerr Hardware Co.
Brashear, Mo.—John Thrasher.
Cliffside Park, N. J.—Emile Raas.
Clyde, N. Y.—Hughson & Littlejohn.
Dubuque, Ia.—C. H. Little, Becker & Co.
Eureka, Cal.—Ohman Hardware Co.
Ferndale, Cal.—Kansen & Williams Hardware Co.
Fort Dodge, Ia.—Craft Hardware Co.
Galion, Ohio.—Cassel & McGuire.
Harvey, N. D.—L. P. Strong.
Helena, Ark.—Arkansas & Mississippi Hardware Co.
Joliet, Ill.—Miller & Landon.
Leadville, Colo.—The Western Hardware Co.
Lexington, Ky.—The Hudson-Pohlman Hardware Co.
Loraine, Ohio.—The Lane-Bowen Co.
Louisa, Ky.—The Snyder Hardware Co.
Marietta, Ohio.—The Hagan Hardware Co.
Marietta, Ohio.—The Seyler Hardware Co.
Millington, Mich.—A. C. Allen.
Morgantown, W. Va.—The Morgantown Hardware Co. have been incorporated.
New Decatur, Ala.—Smith & Gill.
Pine Bush, N. Y.—J. Skinner & Son.
Pittsfield, Mass.—Pierson Hardware Co.
Portsmouth, Va.—W. F. Robertson.
Salt Lake City, Utah.—J. A. Johnson.
Steubenville, Ohio.—The Steubenville Hardware & Supply Co.
Waldron, Ark.—The Waldron Hardware Co.
Walnut Ridge, Ark.—The Grimes Hardware Co.
Wheeling, W. Va.—The Jacob Snyder's Sons Co.
Moline, Ill.—P. J. Sundberg.
Waynesfield, Ohio.—W. R. Green.

CHANGES.

Joliet, Ill.—Frank Sloan is succeeded by Miller & Landon.
Millington, Mich.—Squire Bros. are succeeded by A. C. Allen.
New Castle, Pa.—Harry Good has secured an interest in the Horton & Whitten Hardware Co.
Auburn, N. Y.—Shallish & Rich have dissolved; Henry Rich will continue the business alone.
Carlinville, Ill.—Richard Simmons is succeeded by Geo. R. Arnott.
Edwards, N. Y.—John Lumley succeeds James O'Shea.
Elgin, Ill.—Hawthorne Bros.
Geneseo, N. Y.—Frazer, Green & Leadingham succeed J. E. Johnson.
Gloversville, N. Y.—Hagedon & Vail succeed H. G. Selleck.
Hopedale, Ill.—The Strickland Hardware Co. are succeeded by J. M. Dowell.
Lafayette, Ia.—Montgomery & Latimer are succeeded by F. A. Hoy.
Marietta, Ohio.—The Hagan Hardware Co. are about to be reorganized and will in future be known as the Union Hardware Co.
Keswick, Ia.—Allen & Stein are succeeded by Willis Van Fossin.

MISCELLANEOUS.

Whittier, Cal.—The Whittier Hardware Co. are erecting a two story brick building, to be occupied as a hardware store.
Wilton, Wis.—A. Falker & Son, whose stock was recently damaged by fire, are open again for business.
Laddonia, Wis.—H. L. Alfelt, who went into bankruptcy, has been discharged.
Albany, Ga.—R. C. Eatman purchased some property, on which he will soon erect a handsome two story brick building for a hardware establishment.

STOPPAGES.

Whitewater, Wis.—A. F. Bridge has sold his hardware business at East Jordon and again moved back to his old place.
Brooklyn, Ill.—Keehug & Tuttle have dissolved partnership.

Advertising Department.

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

We do not consider the advertisement of the Deposit Hardware Co., 101-103 Front street, Deposit, N. Y., in good form. A great improvement could have been made by paneling the various articles in department store fashion, thus giving them character and standing, each being an advertisement in itself. The word-

Deposit Hardware Co.

THE LEADING STORE FOR

Good Goods.
Big Assortment.
Low Prices.

We are prepared to supply our trade with the best assortment to be found in a first-class hardware store. Your attention is called to a few useful articles

CUTLERY

Carving Sets, ranging in price from 50c to $7.50

Silver-plated Knives and Forks from $1.50 to $3.75 per set.

Nickle-plated Ware, consisting of Chafing Dishes, Tea and Coffee Pots, etc.

Lisk guaranteed Tinware.

Stransky guaranteed Porcelain lined Enamel Ware

Self-basti g Roasters from 35c to $1.50.

Washing Machines, $3.25.

Ball bearing Wringers, $2.40.

Wash Boilers from 75c to $2 75.

Cross-cut Saws, $1.50 to $3.50.

Guaranteed handled axes, 75c.

Wedges, per pound, 10c.

Go-Devils, per pound, 12½c.

SPORTING GOODS.

Single-barrel Shot-Guns, $5.00 to $7.50.

Double-barrel Shot-guns, $9.00 to $25.

Marlin and Winchester Repeating Rifles.

Hunting Coats, $1 to $2.

Hunting Vests, $1.

Leggins, 50c and 75c.

Loaded Shells, black powder, 50c per box.

Loaded Shells, smokeless powder 60c per box.

Shot, 8c per pound.

LARGE ASSORTMENT OF STOVES AND RANGES.
Oil Heaters, $3.25 and $4.25.

DO NOT FORGET OUR

5c, 10c and 25c Bargain Counters.

If you need anything in the Hardware line do not fail to look over our stock.

Deposit Hardware Co.

101-103 FRONT ST., DEPOSIT, N. Y.

ing is superfluous in the fact that they call attention to "a big assortment," "best assortment," "large assortment," any of which would have been sufficiently impressive in itself. The type display is nothing extra and the style is slightly archaic.

Vallancey Bros., Mandan, N. D., have an unusually excellent and seasonable advertisement, and that they are a progressive house is shown by the fact that they mark all goods in plain figures. The only criticism to be made on the subject matter is its redundancy. Instead of saying "No juggling with prices to suit customers," and later "One Price Hardware Store," why not emphasize the "*One*," or else why not leave out both phrases and say, "We mark all goods in plain figures and stick absolutely to them," or "Our

A Good Rake for...35c
A Better Rake for...50c
The Best Rake Made for...75c
All goods Marked in Plain Figures

Garden Tools

A Good Hoe for.....35c
The Best Hoe for.....60c
A Guaranteed Spade for...$1
No juggling with prices to suit customers

May's Northern Grown Seeds

Are sure to grow, and being northern grown are sure to mature. We have all kinds, in package or bulk, all seeds are fresh and pure.
Don't run any chances in buying poor seeds---buy May's seeds from

VALLANCEY BROS.

One Price Hardware Store.

only selling price is given in plain figures on the goods themselves."

John Wanamaker has quite an advertising reputation and dealers can get some points in advertising gas ranges by reading his announcement and seeing

"Klean, Kwick, Kool, Konvenient"

The gas range!

No risk in cooking in evening dress if the emergency arises.

No ashes, no dust, no blacking.

A turn of the wrist, a match—and the fire is ready.

Intense heat where wanted—and none through the rest of the house.

When the Rush Comes

it will be too late to have connections made quickly, so the time to buy a gas range is NOW.

The Wanamaker Range is Best

We know this—and thousands of owners know it—from experience.

It has sawed burners that save gas and concentrate heat. Easy to clean because the top lifts off.

"Wanamaker Chief," $10.75 to $12.75.
"Wanamaker Cottage," $12.50, $14.75.
"Wanamaker Economic," $13.75, $15.35.
"Wanamaker Superb," $15.75, $17.75.

A *water heater* attached to the boiler will give you hot wa er all through the house.

With iron circulating pipes, $6.75 and $7.75; copper pipes, $9, $10.50 and $13.50.

Cooking School Every Day

At 10.30 A. M.—Miss Andrews will prepare Boston baked beans and brown bread, ginger bread; pastry; and

At 2.30 P. M.—Strawberry meringue, strawberry tarts.

Bring a pencil and paper.

John Wanamaker

the easy conversational way in which he brings out the features of these goods.

Heating and Ventilating

Arthur J. Abert is a new Baldwinsville, N. Y., heating man.

The American Radiator Co., Lake and Dearborn streets, Chicago, have established offices at 24 Rue de Mogador, Paris.

The Fish-Burke Plumbing & Heating Co. succeed the McElroy-Hudspeth Plumbing Co. at 231 South Main street, Pueblo, Colo.

The Eastern Trade Golf Association will hold their next annual tournament at the Garden City Golf links, Garden City, L. I., on May 20.

The Tuttle & Bailey Mfg. Co., New York, Chicago and Boston, send us a circular describing the T. & B. Special side wall registers, for shallow flues and thin partitions for use in baseboards. By its construction a space for hot air flue at least two inches deeper can be obtained, it is claimed—i. e., with this register a six-inch deep pipe can be used when the studding is only four inches. This register is made in three parts, the border frame, the register face and the valve, and the 7x12-inch size weighs 10 pounds. It readily comes apart by taking out the two side screws. The movement or operating wheel in this register is noiseless, and so operates the single valve that any part or all of the heat can be deflected into the room, also any part or all can be allowed to pass on up the flue to the second story register. This firm makes all styles and sizes of hot air registers and ventilators.

WARMTH FOR WINTER HOMES.

The Detroit Heating & Lighting Co., Detroit, Mich., send us a booklet entitled "Warmth for Winter Homes," whose front cover might be used as an illustration to accompany Lowell's pretty poem:

"The snow had begun in the gloaming
And busily all the night
Had been heaping field and highway
With a silence deep and white."

This booklet is unlike the average heating catalogue. Its every sentence shows an iconoclastic contempt for stereotyped forms of heating trade literature. It is, in short, an exposition of the science of house heating stripped of its technicalities that gives facts about the Bolton hot water heater in a style that is a happy hybrid of the argumentative and the gossipy. It's interesting reading, as the following hot shot would indicate:

"The unlucky purchasers of heaters have themselves been largely to blame for the disappointments and losses which they have sustained, by reason of the encouragement which they gave to the incompetent mechanic. A pair of blue jeans overalls, a pipe wrench, and a willingness to work for two dollars a day and give all discounts on material to the employer, have too frequently been accepted in lieu of experience, knowledge and ability. It is not safe to assume that every one who wears the mechanic's garb, or whose letterheads and business cards solicit heating work, is by any means competent, either to advise or execute."

There's a world of good bullet-headed truth in this. Legitimate dealers would do well to print this sentence on the back of their business cards whatever heater they may handle, as there are hundreds of penny-wise-pound-foolish house builders who are surprised and pained to learn that steam hot water and hot air heaters are not self-erecting.

To these people furnace wisdom and hot-water experience lies—as these Detroit manufacturers suggest—in the Almighty Overalls, and as a rule they get some very fierce bites before a dim idea penetrates into their cerebral matter that perhaps experience in heating work has a dollars and cents value.

The Bolton hot water heater described at length in this volume is a good heater as the trade quite generally know.

The rules for "Estimating the Size of Heater and the Quantity of Reduction" and the "Answers to Questions" given in this volume will be of interest to the heating fraternity. One of these booklets will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

"KERNAN WELCOME" FURNACE AND REGISTERS.

The Syracuse Stove Works, Syracuse, N. Y., send us a catalogue describing the "Kernan Welcome" K-O and K-L furnaces for soft coal, with Kernan hot air blast and Kernan shell bar rotating and revolving grate.

In the "Kernan Welcome" K-O construction the air enters the enlarged hot air chamber through the feed door and is carried into a large flue on the under side of the feed section, being necessarily heated in its passage, and from this heated chamber it is, in downward currents, sprayed equally and evenly over the entire surface of the fire. Some of the special constructional points are the extra thickness and increased weight of all parts of the furnace that come in contact with the fire, a solid one-piece cast iron radiator Kernan shell bar rotating and revolving dump grate, an extra large feed door, a suspended smoke curtain in the mouth of the feed section to prevent belching forth of smoke while the furnace is being fired; staggered ring fire pot, giving additional heating surface and extra strength, the rings also acting as conductors to draw the heat from the body of the pot to prevent overheating, and an extra large and heavy ribbed dome, which gives ample room for the expansion consequent on combustion. These furnaces have all the most modern improvements in a dust flue, dust flue damper, regulating chains and dumpers. The parts are easily assembled without the use of bolts.

The Kernan shell bar rotating and revolving grate allows the air on all sides to pass into and through the bar. It carries the air currents through the entire length of each bar and across the entire grate surface and through the central hot air chamber of the grate. These grate bars are without bolts and are suspended within a removable frame. The grate frame or any bar may be easily replaced through the ash pit door. One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

Is There Any Good Reason For Using Double Wall Pipe?

DOUBLE PIPE DOES NOT BUCKLE.

F. Meyer & Bro. Co., Peoria, Ill., write: "We use double pipe instead of single, as the main advantage is that it is not necessary to cover them with wire lath, as there is a space between the inner and outer pipe, through which a current of air is constantly passing. It keeps the outside pipe practically cool and therefore makes it safer. The patent double pipe is also put up a great deal quicker than the ordinary single pipe. It does not buckle, therefore, always retains its full capacity."

DOUBLE WALL PIPE GIVES SAFETY FROM FIRE.

The Excelsior Steel Furnace Co., Chicago, write: "There are two very good reasons for the use of double wall pipe, viz: First, the fact that double wall pipe conveys a larger percentage of warm air than single pipe, owing to the air space between the inner and outer pipes; second, the fact that there is absolute safety from fire when double wall pipe is used, which is not the case when single pipe is used. It might be added further that double wall pipe, owing to the small cost of installation, is more economical to use than single pipe and also makes a very much more highly finished job."

AN ABSOLUTELY FIRE-PROOF PIPE.

John P. Schaffer, Pittsburg, writes: "I will say that the reasons for using double wall pipe are quite a few, some of the most important ones are these: First, they make an absolute fire-proof pipe as against a single pipe covered with asbestos; asbestos paper will in time deteriorate and crumble off the pipe; mice or rats are apt to cut it off, while the air space in a double pipe must remain. Furthermore, asbestos is not a non-conductor while an air space is; second, the joints of double pipe are much tighter fitting than single; third, the heated air is warmer after passing through a certain length of double pipe than a single pipe."

CAN BE USED WITH PERFECT SAFETY.

The Michigan Safety Furnace Pipe Co., Detroit, Mich., write: "One of the first reasons why double furnace pipe should be used is that it can be used with perfect safety. This cannot always be said of single pipe. There has been some buildings burned down where they have had single pipe, but never where a double pipe has been used. In most large cities there is an ordinance that compels all furnace men to use double pipes in walls. One of the advantages of using a double pipe is that you are getting all of the heat into the room that the furnace is making. None of the heat being lost from radiation. If you will lay your hand on a wall where a single furnace pipe goes up, you will always find the wall very hot, which certainly shows a loss of heat, and some danger, and most invariably you will find the plaster cracked where the furnace pipe runs, all of which does not happen to double wall pipe with a perfect air space. Then again, if a single wall pipe is put in it should be wrapped with asbestos paper and the studding lined with tin, and iron lath used. If this is done the furnace man will find it just as expensive as double pipe, and it takes more time; does not do as good a job, and costs as much money as a sectional safety pipe. Double pipe, as commonly made, that is in long sections from five to twelve feet, one telescoped into the other, affords no better protection than single pipe, for it is not the two thicknesses of metal, but the air space between the inner and outer pipe that acts as a non-conductor of heat, and this air space you cannot retain in long sections.

DOUBLE PIPE IS NOT NECESSARY.

The Lennox Mfg. Co., Marshalltown, Ia., write: "The double pipe makes a good substantial job, but so far as results are concerned, and danger of fire, etc., we would not consider that it was necessary to use the double pipe and it is an exception to the rule to use it in the state of Iowa. There are some cities farther east where the ordinances call for it. We do not know of any good reason why the single pipe, well covered with asbestos paper, would not answer the purpose as well as the double pipe."

DOUBLE WALL PIPE IS PREFERABLE.

W. A. Clark & Co., Covington, Ky., write: "Double wall pipe is preferable on account of fire."

WILL STAKE REPUTATION ON SINGLE WALL PIPE.

The Peck-Williamson Heating & Ventilating Co., Cincinnati, O., write: "We could never see the advantage of using double wall pipe. In many sections of the country the insurance laws require this. We are satisfied to stake our reputation on the single pipe of proper size and well covered with 14 or 16 oz. asbestos paper."

DOUBLE PIPES SHOULD BE USED.

R. J. Schwab & Sons Co., Milwaukee, Wis., write: "We think by all odds pipes in the walls should be double. We do not consider it safe to use a single pipe. While in a large majority of cases no fire is caused from same, we have known some instances where such pipes have become overheated and set fire to the partition. All of our larger cities having building laws demand the use of double pipes and we would not, under any circumstances, place a furnace in any other way. A single pipe covered with asbestos paper is but little if any better than the single pipe without the asbestos covering. The asbestos paper itself will not burn, even on red hot coal, but it is not a non-conductor of heat and you can set fire through a piece of asbestos paper about, if not as quick, as though the paper was not there."

ALL PIPES IN WOOD PARTITIONS SHOULD BE DOUBLE.

A leading western furnace firm write: "Would state that hot air pipes in wood partitions should never be put in unless made double, with not less than three-eighths inch air space between the inner and outer wall of pipe as a matter of safety."

DOUBLE WALL PIPE IS THE BEST.

A leading western furnace firm write: "For wall pipe we think double pipe is without question the best, as it is not only a little safer but makes a better and more satisfactory job, although it does not give as much space for warm air as single pipe."

USE OF DOUBLE PIPES PREVENTS LOSS OF HEAT BY RADIATION.

The Hillman-Cory Co., New York, write: "The same reason exists for using double wall pipe as for the covering of steam pipe. It prevents the loss of heat by radiation and protects the pipe from outside air. This is especially true where the pipe is placed in outer walls and partitions."

FAVOR WRAPPING WITH ASBESTOS PAPER.

The Germer Stove Co., Erie, Pa., write: "There is no special reason for using double wall pipe. Wrap with asbestos paper."

FAVOR DOUBLE WALL PIPE.

The Turner-Zephyr Heaters Co., Indianapolis, Ind., write: "Double wall pipe is advisable to protect from air draughts which cool the pipe—and also for safety. In case pipe comes in contact with wood, at any point where the usual draught does not neutralize such heat, it sometimes acts on any wood in contact with it, which has often been known to cause spontaneous combustion."

PREFER ASBESTOS WRAPPED SINGLE WALL PIPE.

The Robinson Furnace Co., Chicago, write: "Can see no good reason for using double wall pipe, as we believe the single pipe well wrapped with asbestos paper, is preferable. It certainly makes a nice job and increases the air capacity to the second floor rooms."

NO GOOD REASON FOR USING DOUBLE WALL PIPE.

The Quaker Mfg. Co., Chicago Heights, Ill., write: "There is no good reason for using double wall pipes, except that a tighter job can be made and can be better kept away from the wood work. We consider, however, a single pipe made of heavy tin and well wrapped in asbestos paper, and no place torn off in putting in, and especially where the joists are lined with tin on the sides, that it answers the purpose fully as well as double pipe. However, it is just as easy to put in the double pipe as it is to put in the single pipe and put it in right, and the double pipe makes a much nicer looking job and can be put in in the right way by anyone, while the other requires more care to make a good job."

PREFER SINGLE WALL PIPES WRAPPED IN ASBESTOS.

The Peck-Hammond Co., Cincinnati, write: "We know of no good reason for using double wall pipes, but think the single wall pipes wrapped with asbestos paper are preferable in that you can get a larger amount of air into the rooms."

GOOD REASONS FOR USING DOUBLE WALL PIPES.

The Monroe Foundry & Furnace Co., Monroe, Mich., write: "There are good reasons for using double wall pipe on the score of economy, though we do not consider it necessary as a protection against danger of fire."

DOUBLE WALL PIPE SHOULD BE USED.

A western furnace firm write: "There is every possible reason why double pipe should be used in wood partitions, unless the pipes are well wrapped with asbestos paper.

NO REASON FOR USING DOUBLE WALL PIPES.

The Front Rank Steel Furnace Co., St. Louis, write: "We do not think there is any good reason for using double wall pipes; single ones wrapped with asbestos paper are just as safe and we prefer them because a deeper pipe can be used and they are more easily adapted to all kinds of places."

USE SINGLE PIPE ALTOGETHER.

The Campbell Furnace Co., Des Moines, Ia., write: "The jacketed furnace makes every possible precaution against fire necessary. Hence the use of double pipes is necessary, but they should not be put into 4-inch partitions, as the double pipe reduces the size too much to give good capacity unless it is made larger than can be put in a 4-inch space. We use the single pipe altogether."

PREFER SINGLE PIPE PROTECTED WITH ASBESTOS.

The White-Warner Co., Taunton, Mass., write: "We should very much prefer to have the pipe well protected with asbestos paper of good thickness and the partition sheathed with tin than to have double pipe."

USE NO DOUBLE WALL PIPE.

The Hess-Snyder Co., Massillon, O., write: "We do not use any double wall pipe. All our wall pipe is made from good I. X. Bright Tin, and amply covered with asbestos paper, which we consider better than double wall pipe."

NO GOOD REASON FOR USING DOUBLE WALL PIPE.

The Rapid Transit Stove & Furnace Co., Baltimore, Md., write: "In our experience of forty-four years we have not discovered any good reason for using double wall pipe."

DOUBLE WALL PIPE NOT PRACTICAL.

Rohrbacher & Allen, Akron, O., write: "From our own experience we think double wall pipe not practical for the simple reason that outside pipe rusts and in a few years is of no value whatever as a protection, therefore we consider asbestos covered pipes better."

DOUBLE WALL PIPE IS PROTECTION AGAINST FIRE.

The S. B. Sexton Stove & Mfg. Co., Baltimore, Md., write: "There are several good reasons for using double wall pipe. It is a protection against fire and prevents the loss or radiation of heat."

FAVOR SINGLE WALL PIPE.

Isaac A. Sheppard & Co., Philadelphia, write: "With reference to double wall pipes, we are under the impression that the building laws in some sections require the use of double wall pipes, but we believe ourselves that a single pipe well covered with asbestos is for all practical purposes as good as a double pipe and much cheaper. It has also the advantage that larger pipes can be used thereby decreasing the friction in the hot air flues and permitting a more satisfactory circulation of the warmed air."

BUILDING LAWS REQUIRE DOUBLE WALL PIPE.

The Union Stove Works, New York, write: "Again without regard to whether there is a good reason for using double wall pipe, our building laws here require that it be used very extensively."

PERFECT PROTECTION FROM COLD AIR.

The Brien Heater Co., Hoosick Falls, N. Y., write: "The best reason for using double wall pipe is the perfect protection from cold air outside the pipe. For safety it is not necessary."

SINGLE WALL PIPES DO NOT CAUSE FIRES.

The Chappell Furnace Co., Morenci, Mich., write: "We can see no good reason for using double wall pipe if the single pipe is properly wrapped with asbestos. In our experience we have never known of a fire to be caused by single wall pipe."

DOUBLE WALL PIPE UNNECESSARY IF PROPERLY PIPED.

C. F. Palmer & Sons, Utica, N. Y., write: "There is no good reason for using double wall pipe if the job is properly piped."

DOUBLE WALL PIPE PROTECTS FROM FIRE.

The Turner Heater Co., Bristol, Tenn., write: "Double wall pipe gives protection from fire, and keeps cold air from hot air flue."

ENDORSES DOUBLE WALL PIPE.

The L. J. Mueller Furnace Co., Milwaukee, Wis., write: "There are good reasons for using double wall pipe."

FAVOR ASBESTOS SINGLE COVERED PIPE.

W. A. Sewell & Co., Lyons, Ia., write: "There is no good reason for using double wall pipe, as pipe well covered with asbestos is better."

FAVOR ASBESTOS SHEATHING.

The Prizer-Painter Stove & Heater Co., Reading, Pa., write: "There is no good reason for using double wall pipe. Asbestos sheathing should be used around the single pipe."

AFFORDS SAFETY FROM FIRE.

The Hess Warming & Ventilating Co., Chicago, write: "The use of double wall pipe affords safety from fire."

OPPOSED TO DOUBLE WALL PIPE.

The Co-operative Foundry Co., Rochester, N. Y., write: "Ordinarily there is no good reason for using double wall pipe."

DO NOT CARE FOR DOUBLE WALL PIPE.

The Portland Foundry Co., Portland, Me., write: "There is no good reason for using double wall pipe."

DOUBLE WALL IS SUPERIOR TO SINGLE.

The Patric Furnace Co., Springfield, O., write: "Double wall is undoubtedly superior to single. A more substantial job can be secured by its use and owing to the air space, it should deliver more heat on account of the saving in radiation. As to safety to single pipe as compared with double, if it is carefully covered with asbestos paper, there is no reason to fear its use ordinarily, although in some cities the use of double pipe is compulsory."

WHERE DOUBLE WALL PIPE SHOULD BE USED.

The Thomas Roberts Stevenson Co., Philadelphia, write: "There is no good reason for having double wall pipe put in a brick wall. If the joint pipe is put up through a partition, then the pipe should be doubled, and should have a space between the two, and the inner pipe covered with asbestos. This would prevent any possibility of fire. Where the pipes run into a brick wall there is absolutely no use of having double pipe."

THINK IT BETTER.

The Putnam Foundry & Machine Co., Putnam, Conn., write: "We think double wall pipe is better than single wall pipe."

BUILDING LAWS REQUIRE IT.

The B. C. Bibb Stove Co., Baltimore, Md., write: "Double wall pipes are necessary because our city building laws enforce their use."

Tinshop.

TO DESCRIBE A PATTERN FOR A RIDGE SADDLE.

Herewith is a pattern for a ridge saddle. Let *c d e*, Fig. 1, equal pitch of roof, and *a b* diameter of pipe. Describe the semi-circle *a f b*, and divide one-half of it into any equal number of parts; cutting those points

Fig. 1

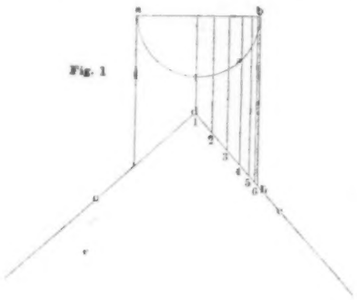
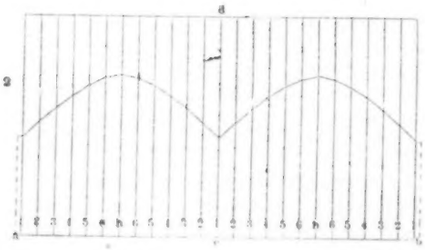


Fig. 2



of division draw the lines, 1, 2, 3, etc., parallel to the line *b h*. Let *a b*, Fig. 2, equal circumference of pipe, and at center of line erect the perpendicular, *c d*, then divide *a c* and *b c* into as many parts again as the quarter circle in Fig. 1 contains, and erect the lines 1, 2, 3, etc. Set off on these lines the same distances as in Fig. 1, corresponding with 1, 2, 3, 4, etc. To describe flange for same, let the circle, Fig. 3, represent the diameter of pipe and draw the right angle line *a b c*. Divide *a b* into any number of equal parts

Fig. 3

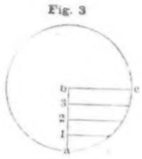
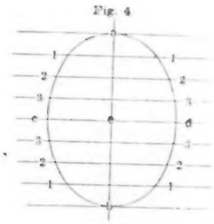


Fig. 4

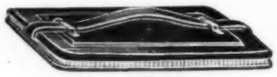


and draw lines to circumference at right angle to *a b*. Mark the indefinite right angle lines *a b* and *c d*, as in Fig. 4. Make *e a* and *e b* equal to *d h*, in Fig. 1, and divide *e a* and *e b* into the same number of parts as *b a* in Fig. 3, and draw the lines parallel to *c d*. Make *e c* and *e d* equal to *b* c, in Fig. 3, and so with each of the lines bearing corresponding figures, as 1, 2, 3. A line traced through these points will form the pattern.

EHLE PATENT FOOD CARRIER.

Journalism must claim the credit for the pioneer food carrier. As our grandfathers carried their luncheons to work wrapped in a newspaper and read their lunch-box after their noonday meal was finished. The modern newspaper is a miracle but considered solely in its function of a lunch carrier it is indeed a far cry from this wrapper to the Ehle patent dinner pail and lunch box, manufactured by the F. G. O. Ehle Co., Buffalo, N. Y., and shown herewith. The cuts show these lunch boxes set up in use and folded. The practical convenience of this collapsible or nesting feature of these goods is being too apparent to need particular emphasis. This firm make a complete line of food carriers, lunch boxes, etc., and would be pleased to send one of their latest catalogues to the trade on application. When writing for same kindly add, "Saw it in THE AMERICAN ARTISAN."

Set Up in Use.



Folded.

DEATH OF WM. GEUDER.

The trade will learn with deep regret of the death of Wm. Geuder, president of the Gueder & Paeschke Mfg. Co., Milwaukee, Wis., which took place at his residence, 2732 Highland Blvd., that city on April 27th last. Mr. Geuder returned from his office at 5:30 p. m. and entered the bath room to take a bath. Within a few minutes he fell dead from apoplexy.

In addition to his large manufacturing interests, Mr. Geuder was one of the Wisconsin commissioners of the Louisiana Purchase Exposition, and has been prominently identified in the past with political life in that city. He was a public-spirited and enterprising citizen, and was in the 51st year of his age. Besides the large tinware company, which bears his name, he was actively identified with a number of other leading Milwaukee business enterprises.

He is survived by a widow and two sons, George and Wm. Geuder, and three daughters, Mrs. Emma Vogel, Mrs. Martha Zinka, and Miss Emilie Geuder. He is also survived by three sisters, Mrs. Chas. L. Kiewert, Mrs. Augusta Schleuter and Mrs. Belle Otto.

The Milwaukee Sentinel has this to say editorially concerning Mr. Geuder:

"While Mr. Geuder was a conservative, solid, substantial man of business, the social side of his character was fully developed and he naturally took a lively interest in civic affairs. He was for years connected with the school board, of which body he was a progressive and intelligent member and an untiring worker. Having accumulated a competency before reaching middle life, while still attending to his business he devoted considerable of his time to public af-

fairs, in which he felt a natural interest without developing a consuming political ambition.

"The best words that can be said of a man who enters the shadows to return no more are that he was honest, that he was a true friend, that he did his full duty, and kept his obligations. All this can be said of William Geuder, and more."

NOTES AND QUERIES.

FURNITURE JOURNALS.

From "A. E. B.," Cleveland, Ohio.

Would like the names of some leading furniture journals?

Ans.—Pacific Furniture Trade, 487 Mission street, San Francisco, Cal.; Furniture Journal, 241 Wabash avenue, Chicago, Ill.; Furniture Industry, Evansville, Ind.; Furniture Reporter, Indianapolis, Ind.; Grand Rapids Furniture Record, Grand Rapids, Mich.; Michigan Artisan, Grand Rapids, Mich.; Midway Manufacturer, St. Anthony Park, Minn.; St. Louis Furniture News, 110 North Eighth street, St. Louis, Mo.; American Cabinet Maker, 116 Walker street, New York, N. Y.; Furniture Trade Review, 31 East Seventeenth street, New York, N. Y.; Furniture World, 150 Fifth avenue, New York, N. Y.; Furniture Index, Jamestown, N. Y.; Southern Furniture Jour. & W. B., High Point, N. C.; Furniture Worker, 128 Longworth street, Cincinnati, O.

GALVANIZED STEEL TUB WASHING MACHINES.

From Peter Klinkner, Dyersville, Ia.

Where can I buy galvanized steel tub washing machines?

Ans.—United States Washing Machine Co., Chicago; Fred Brosi Mfg. Co., Quincy, Ill.

STABLE FIXTURES.

From Peter Fels, Homestead, Ia.

Where can I buy stable fixtures?

Ans.—Arnold & Co., Norwalk, Conn.; Barbee Wire & Iron Works, 44 Dearborn street, Chicago; E. T. Barnum, Detroit, Mich.; John Campbell, Manchester, N. H.; Champion Iron Co., Kenton, Ohio; J. W. Fiske, 39 Park Place, New York; Howard & Morse, 45 Fulton street, New York; Jackson Arch. Iron Works, 315 E. 28th street, New York; Kansas City Wire & Iron Works, Kansas City, Mo.; Lincoln Iron Works, Boonton, N. J.; Fred J. Meyers Mfg. Co., Hamilton, Ohio; J. L. Mott Iron Works, 90 Beekman street, New York, N. Y.; E. C. Stearns & Co., Syracuse, N. Y.; Van Dorn Iron Works Co., Cleveland, Ohio; Variety Iron Works, York, Pa.; A. B. & W. T. Westervelt, 102 Chambers street, New York.

NOVELTY MFG. CO.

From Peter Fels, Homestead, Ia.

What is the address of the Novelty Mfg. Co.?

Ans.—There are three firms doing business under the style of the Novelty Mfg. Co., the one located in La Crosse, Wis., make pipe reamers; the one located at Rock Island, Ill., make farm specialties, and the one at Jackson, Mich., make oil heaters.

NOVELTY STAMPING CO.

From Peter Fels, Homestead, Ia.

What is the address of the Novelty Stamping Co.?

Ans.—Bellaire, Ohio.

COFFINS.

From X. Y. Z., Marshalltown, Ia.

Where can I buy coffins?

Ans.—Buckstaff-Edwards Co., Oshkosh, Wis.; Burlington Coffin Co., Burlington, N. C.; Chattanooga Coffin & Casket Co., Chattanooga, Tenn.; Chicago Coffin Co., 465 S. Canal street, Chicago, Ill.; Cincinnati Coffin Co., Cincinnati, Ohio; Crane & Breed Mfg. Co., Cincinnati, Ohio; Gate City Coffin Co., Atlanta, Ga.; Globe Casket Co., Kalamazoo, Mich.; L. H. Hall & Co., Atlanta, Ga.; Hornthal & Co., 31 Bond street, New York; Iowa Coffin Co., Dubuque, Ia.; Mound Coffin Co., 2000 N. 2d street, St. Louis, Mo.; Muskingum Coffin Co., Zanesville, Ohio; National Casket Co., Rochester, N. Y.; N. Y. & Brooklyn Casket Co., 34 S. 9th street, Brooklyn, N. Y.; Northwestern Casket Co., Minneapolis, Minn.; Rock Falls Mfg. Co., Sterling, Ill.; G. W. Wooley & Son, Hartford, Conn.

STORING GASOLENE.

From "Reader," Grand Forks, N. D.

What firms make a special tank for storing gasolene out of doors?

Ans.—American Can Co., New York City; Star Mfg. Co., Buffalo, N. Y.; S. F. Bowser & Co., Fort Wayne, Ind.

PYROGRAPHIC INSTRUMENTS.

From Wm. Quaritius, Baton Rouge, La.

Where can I obtain a pyrographic instrument?

Ans.—J. G. Tyssowski & Co., 1113 Schiller Bldg., Chicago, Ill.

TROJAN POST HOLE DIGGER.

From Reader, Chicago.

Who makes the Trojan post hole digger?

(Can any of our readers answer this question.)

AMERICAN JUNIOR GASOLINE STOVE.

From Styve & Son, Lake Mills, Ia.

Where can I buy the American Junior gasoline stove?

Ans.—Chicago Stove & Range Co., Chicago.

GALVANIZED CAST IRON FLANGES.

From John C. Sheffner, Casper, Wyo.

Where can I buy galvanized cast iron flanges?

Ans.—Jos. Ryerson & Son, Chicago.

STRENGTH OF GALVANIZED STEEL TANKS.

From Peter Fels, Homestead, Ia.

Do you think a galvanized steel tank would be strong enough for a supply tank made out of three sections No. 28x30x96 seamed and riveted and soldered —3½ feet in diameter and about 7 feet high?

Ans.—Yes.

ROAST PAN.

From Peter Fels, Homestead, Ia.

Who makes a larger roast pan than 12½x17½?

Ans.—Sidney Shepard & Co., Chicago.

LAMP BRACKETS.

From Harry Henderson, Indianapolis, Ind.

Where can I buy lamp brackets?

Ans.—Bradley & Hubbard Mfg. Co., Meriden, Conn.; Bridgeport Gun Implement Co., Bridgeport, Conn.; Climax Mfg. Co., East Hampton, Conn.; Foster, Merriam & Co., Meriden, Conn.; Forsyth Mfg. Co., 308 Terrace, Buffalo, N. Y.; Holmes, Booth & Haydens, Inc., Waterbury, Conn.; H. L. Judd & Co., 87 Chambers St., New York, N. Y.; J. & R. Lamb, 59 Carmine St., New York; Manhattan Brass Co., 338

E. 28th St., New York, N. Y.; Meriden Malleable Iron Co., Meriden, Conn.; Stover Mfg. Co., Freeport, Ill.; United States Mfg. Co., Fond du Lac, Wis.

PUSH CARTS.

From H. J. Krueger, Gladstone, Mich.

Where can I buy push carts?

Ans.—D. J. C. Arnold, New London, Ohio; Lansing Wheelbarrow Co., Lansing, Mich.; Kilbourne & Jacobs Mfg. Co., Columbus, Ohio; A. Meinecke & Son, Milwaukee, Wis.; R. W. Whitehurst & Co., Norfolk, Va.

ITEMS.

H. E. Ingvolstad is a new Sergeant Bluff, Ia., tinner.

L. E. Adwell has opened up a new tin shop on Virginia street, Hopkinsville, Ky.

Four new mills will probably be placed in the American Tin Plate Company's plant at Monessen, Pa.

The Standard Stamping Co., St. Louis, Mo., have increased their capital stock from $400,000 to $500,000.

The Lefferts & Moore Co., 101 East Seventeenth street, New York, slate manufacturers, have announced their dissolution.

Charles G. Rice, Jabez G. Williams and Milton H. Yale are the incorporators of the True Blue Slate Co., New York, capitalized at $5,000.

Chas. Seeger, Bridgewater, S. D., sends us a circular describing Seeger's invincible rainwater filter and strainer, made of galvanized iron 26 inches high and 12x14 inches wide.

Cloyd Lewis, Karl A. M. Scholtz and Bruner R. Anderson are the incorporators of the Baltimore Stamping Co., Baltimore, Md., capitalized at $20,000 for the manufacture of hardware and metal goods.

The Whitelow Co., East Oakland, Cal., are erecting some new works which will be devoted to the manufacture of sheet metal goods. These works will comprise four buildings, each 80x200 feet in dimensions.

A large number of the employes of the Elwood, Ind., plant of the American Tin Plate Co. are deserting on account of heat. It is said that since coal has been substituted for gas the heat in the hot mill of this company is unendurable and the installation of fans and ventilators will be a necessity.

Ferdinand A. W. Kieckhefer, who is very well known to the trade, having been one of the founders of the firm of Kieckhefer Bros. Co., Milwaukee, Wis., well-known manufacturers of enameled ware, has become a "gentleman farmer," as they would term them in older countries on a large scale, his Edgewood farm dairy at Pewaukee Lake, Wis., being a model sanitary institution which is operated under the rigid sanitary rules and conditions established by the milk commission of the Milwaukee Medical Society. The Milwaukee Sentinel of April 26 contained a magnificent two-page write-up of this establishment, written by Edward H. Schwartzburg, of the National Enameling & Stamping Co. Besides the description there are views of the bottle wash room and sterilizer, showing bottle sterilizer and men at work removing all traces of germs, silos, ice houses, etc., residence of Mr. Kieckhefer on Pewaukee Lake, cows in model stables, etc.

The Elliott Mfg. Co., Warren, Ill., favor us with their 1903 catalogue of patent anti-rusting tinware. This firm give an absolute guaranty with these goods, which are made with one-piece bottoms. The line of goods shown in this volume includes anti-rusting pails, anti-rusting strainer pails, anti-rusting cups, anti-rusting dippers, anti-rusting cream pails, anti-rusting milk strainers, anti-rusting teakettles, anti-rusting wash boilers, anti-rusting teapots, anti-rusting coffee pots, anti-rusting coffee boilers, anti-rusting measures, anti-rusting sprinklers, anti-rusting dinner pails, anti-rusting covered pails, anti-rusting lard cans, anti-rusting wash basins, anti-rusting pudding pans, anti-rusting milk pans, anti-rusting sauce pans, anti-rusting preserving kettles, anti-rusting dish pans, anti-rusting decorated pails, anti-rusting toilet sets, anti-rusting chamber pails, anti-rusting bath tubs, anti-rusting oil cans, etc.

One of these catalogues will be furnished the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The Dover Mfg. Co., Canal Dover, O., send us a circular calling attention to their asbestos sad irons.

The core in these irons is a solid block of iron.

The hood is a closely fitted cap which slips over the core when in use. Its lower edge rests upon the flange of the core, to which it is instantly and rigidly attached by a simple locking device. Every portion of the inner surface of this hood is lined with asbestos, of all known substances the one least affected by heat. This asbestos lining prevents the hood and handle from becoming overheated and at the same time retains the heat in the core by protecting it from the cool air, which so quickly chills the ordinary iron. As a further means of keeping the handle cool the iron is so made that a dead air space is left between the top of the core and the hood. This dead air space acts as a reservoir for heat, constantly forcing heat back upon the iron as it cools and reheating it. As the hood is never upon the iron except when in actual use, the handle and hood are always cool and may be kept clean and bright at all times.

The handle is firmly attached to a substantial shield of sheet metal, so arranged as to leave a wide air space between it and the upper surface of the hood. This insures further protection from heat and additional comfort to the user.

The lock is of watch spring steel and is unbreakable, it is claimed. One of these dainty catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

TEXAS HARDWARE JOBBERS MEET.

The Texas Hardware Jobbers' Association held their annual meeting in Dallas recently. The following officers were elected for the ensuing year:

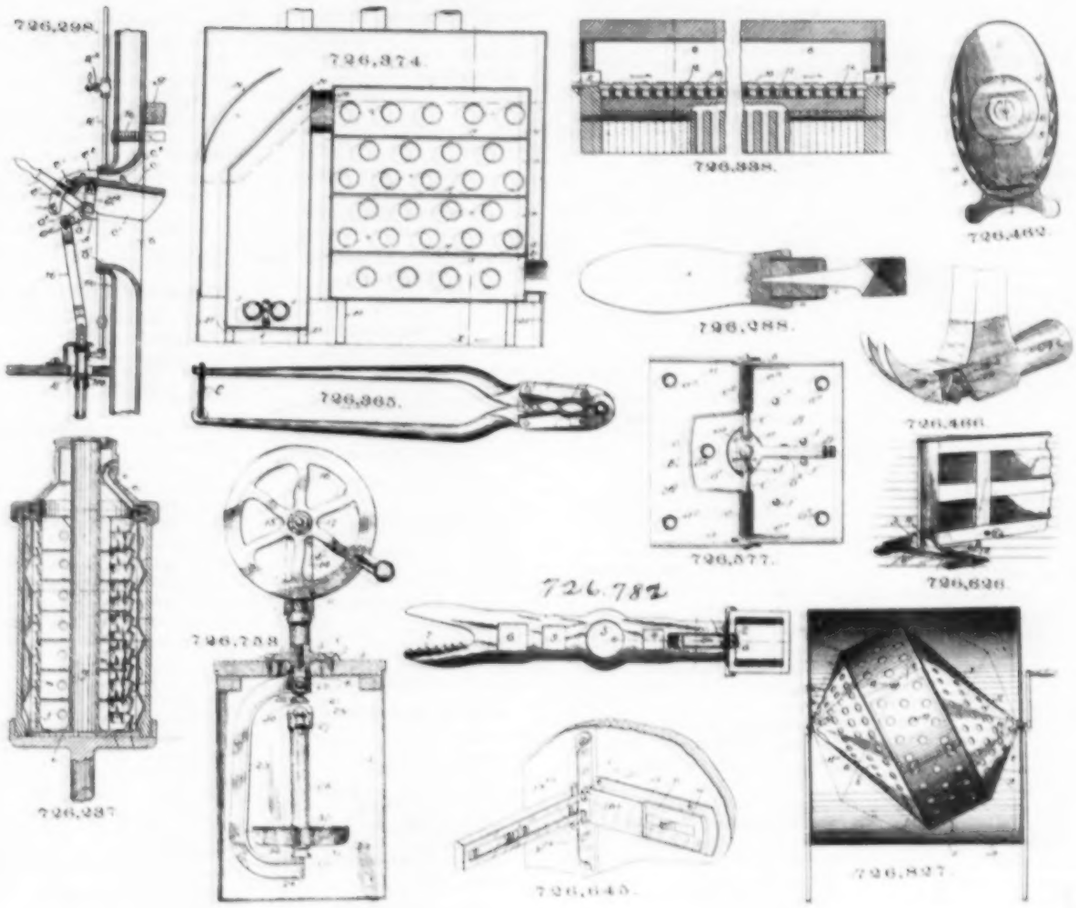
President—J. C. Bering.

First Vice-President—J. B. Burnside.

Second Vice-President—J. Taylor.

Secretary-Treasurer—R. F. Bell.

NEW PATENTS.



726,298—Furnace. Henry H. Huff, Boston, Mass.

726,374—Furnace. Ralph S. Thompson, Springfield, Ohio.

726,338—Perforated-Bottom Furnace. Peter Patterson, McKeesport, Pa.

726,462—Heating-Stove. Charles A. Richardson, Kansas City, Mo.

726,288—Tool-Handle. Eli E. Hendrick, Carbondale, Pa.

726,365—Combination-Tool. Louis Smith, Chicago, Ill.

726,466—Hammer. George H. Rowe, Ennis, Tex.

726,577—Separable Hinge. George H. Schiek, Joliet, Ill.

726,626—Door-Holder. Thomas W. Brittengham, Hampton, Va.

726,237—Centrifugal Cream-Separator. Oscar Anderson, Kearny, N. J.

726,753—Churn. Willard B. Preston, Chicago, Ill.

726,827—Washing-Machine. George H. Rhodes, Healdsburg, Cal.

726,782—Wrench. Nathaniel B. Stone, Outlook, Wash.

726,645—Door-Check. George J. Connor, Boston, Mass.

The outlook for farm hands this coming year is not very bright. Men who work on the farm are growing less every year.—Neponsett (Ill.) Messenger.

CANADIAN PRODUCTION OF PIG IRON.

In 1902 Canada's total production of pig iron amounted to 319,557 tons, 74,581 tons, or 30.4 per cent, in excess of the production of 1901. In 1900 the output of Canadian plants amounted to 86,090 gross tons, against 94,077 tons in 1899, 68,755 tons in 1898, 53,796 tons in 1897, 60,030 tons in 1896, 37,829 tons in 1895 and 44,791 tons in 1894. Thus it will be seen that the production of 1902 is 613 per cent larger than that of 1894. Of the production in 1902 302,712 tons were made with coke and 16,845 tons with charcoal. A little over one-third, or 107,315 tons, was basic pig iron. The Bessemer pig iron made amounted to about 9,000 tons. Spiegeleisen and ferromanganese have not been made since 1899. On Dec. 31, 1902, the unsold stocks of pig iron in Canada amounted to about 20,000 gross tons, as compared with 59,472 tons at the close of 1901 and 12,465 tons at the close of 1900. On Dec. 31, 1902, Canada had fourteen completed blast furnaces, of which seven were in blast and seven were idle. Of these nine were equipped to use coke for fuel, four to use charcoal and one to use mixed charcoal and coke. In addition, four coke and two charcoal furnaces were being built on Dec. 31, 1902.

THE TALE THAT IS TOLD.

"Well," said the anecdotist, taking a fresh start, "to make a long story short——"

"Is a sacrifice we can hardly expect of the raconteur," interrupted the man who apparently never attempts to make friends by his affability.

E. 28th St., New York, N. Y.; Meriden Malleable Iron Co., Meriden, Conn.; Stover Mfg. Co., Freeport, Ill.; United States Mfg. Co., Fond du Lac, Wis.

PUSH CARTS.

From H. J. Krueger, Gladstone, Mich.

Where can I buy push carts?

Ans.—D. J. C. Arnold, New London, Ohio; Lansing Wheelbarrow Co., Lansing, Mich.; Kilbourne & Jacobs Mfg. Co., Columbus, Ohio; A. Meinecke & Son, Milwaukee, Wis.; R. W. Whitehurst & Co., Norfolk, Va.

ITEMS.

H. E. Ingvolstad is a new Sergeant Bluff, Ia., tinner.

L. E. Adwell has opened up a new tin shop on Virginia street, Hopkinsville, Ky.

Four new mills will probably be placed in the American Tin Plate Company's plant at Monessen, Pa.

The Standard Stamping Co., St. Louis, Mo., have increased their capital stock from $400,000 to $500,000.

The Lefferts & Moore Co., 101 East Seventeenth street, New York, slate manufacturers, have announced their dissolution.

Charles G. Rice, Jabez G. Williams and Milton H. Yale are the incorporators of the True Blue Slate Co., New York, capitalized at $5,000.

Chas. Seeger, Bridgewater, S. D., sends us a circular describing Seeger's invincible rainwater filter and strainer, made of galvanized iron 26 inches high and 12x14 inches wide.

Cloyd Lewis, Karl A. M. Scholtz and Bruner R. Anderson are the incorporators of the Baltimore Stamping Co., Baltimore, Md., capitalized at $20,000 for the manufacture of hardware and metal goods.

The Whitelow Co., East Oakland, Cal., are erecting some new works which will be devoted to the manufacture of sheet metal goods. These works will comprise four buildings, each 80x200 feet in dimensions.

A large number of the employes of the Elwood, Ind., plant of the American Tin Plate Co. are deserting on account of heat. It is said that since coal has been substituted for gas the heat in the hot mill of this company is unendurable and the installation of fans and ventilators will be a necessity.

Ferdinand A. W. Kieckhefer, who is very well known to the trade, having been one of the founders of the firm of Kieckhefer Bros. Co., Milwaukee, Wis., well-known manufacturers of enameled ware, has become a "gentleman farmer," as they would term them in older countries on a large scale, his Edgewood farm dairy at Pewaukee Lake, Wis., being a model sanitary institution which is operated under the rigid sanitary rules and conditions established by the milk commission of the Milwaukee Medical Society. The Milwaukee Sentinel of April 26 contained a magnificent two-page write-up of this establishment, written by Edward H. Schwartzburg, of the National Enameling & Stamping Co. Besides the description there are views of the bottle wash room and sterilizer, showing bottle sterilizer and men at work removing all traces of germs, silos, ice houses, etc., residence of Mr. Kieckhefer on Pewaukee Lake, cows in model stables, etc.

The Elliott Mfg. Co., Warren, Ill., favor us with their 1903 catalogue of patent anti-rusting tinware. This firm give an absolute guaranty with these goods, which are made with one-piece bottoms. The line of goods shown in this volume includes anti-rusting pails, anti-rusting strainer pails, anti-rusting cups, anti-rusting dippers, anti-rusting cream pails, anti-rusting milk strainers, anti-rusting teakettles, anti-rusting wash boilers, anti-rusting teapots, anti-rusting coffee pots, anti-rusting coffee boilers, anti-rusting measures, anti-rusting sprinklers, anti-rusting dinner pails, anti-rusting covered pails, anti-rusting lard cans, anti-rusting wash basins, anti-rusting pudding pans, anti-rusting milk pans, anti-rusting sauce pans, anti-rusting preserving kettles, anti-rusting dish pans, anti-rusting decorated pails, anti-rusting toilet sets, anti-rusting chamber pails, anti-rusting bath tubs, anti-rusting oil cans, etc.

One of these catalogues will be furnished the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The Dover Mfg. Co., Canal Dover, O., send us a circular calling attention to their asbestos sad irons.

The core in these irons is a solid block of iron.

The hood is a closely fitted cap which slips over the core when in use. Its lower edge rests upon the flange of the core, to which it is instantly and rigidly attached by a simple locking device. Every portion of the inner surface of this hood is lined with asbestos, of all known substances the one least affected by heat. This asbestos lining prevents the hood and handle from becoming overheated and at the same time retains the heat in the core by protecting it from the cool air, which so quickly chills the ordinary iron. As a further means of keeping the handle cool the iron is so made that a dead air space is left between the top of the core and the hood. This dead air space acts as a reservoir for heat, constantly forcing heat back upon the iron as it cools and reheating it. As the hood is never upon the iron except when in actual use, the handle and hood are always cool and may be kept clean and bright at all times.

The handle is firmly attached to a substantial shield of sheet metal, so arranged as to leave a wide air space between it and the upper surface of the hood. This insures further protection from heat and additional comfort to the user.

The lock is of watch spring steel and is unbreakable, it is claimed. One of these dainty catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

TEXAS HARDWARE JOBBERS MEET.

The Texas Hardware Jobbers' Association held their annual meeting in Dallas recently. The following officers were elected for the ensuing year:

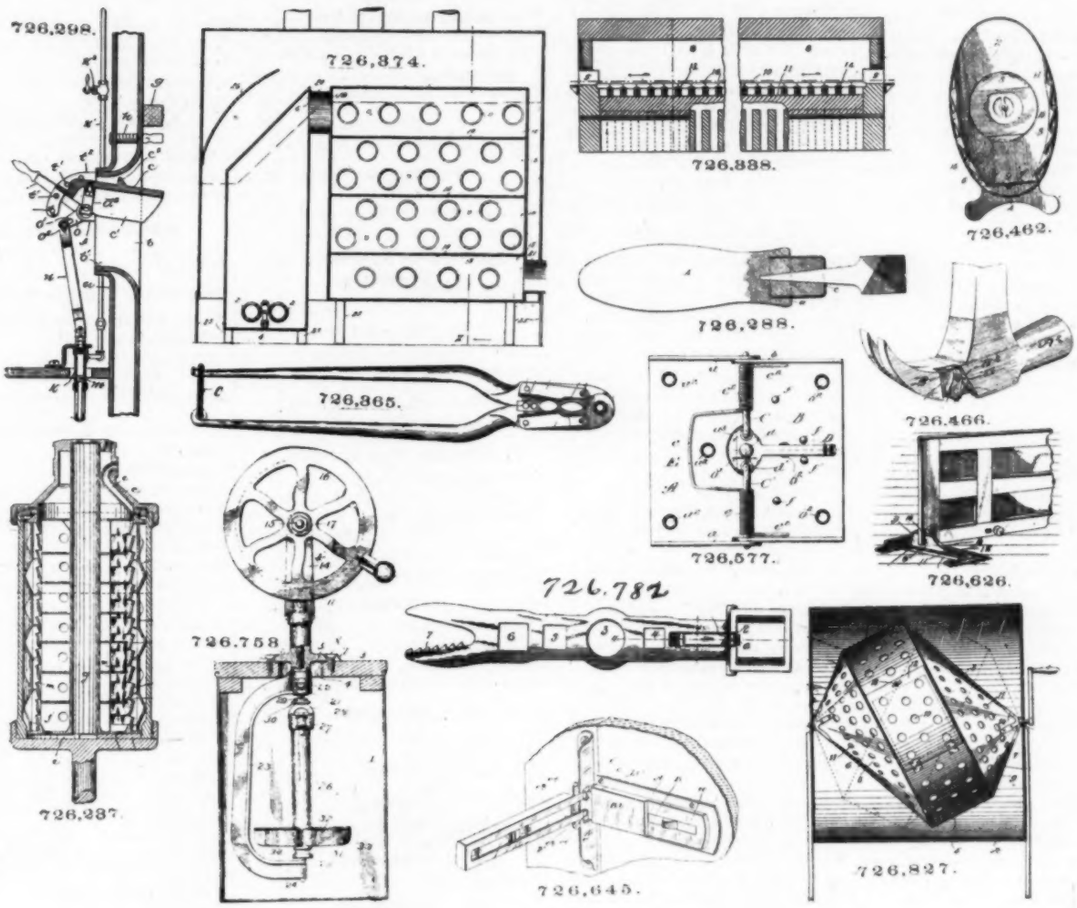
President—J. C. Bering.

First Vice-President—J. B. Burnside.

Second Vice-President—J. Taylor.

Secretary-Treasurer—R. F. Bell.

NEW PATENTS.



726,298—Furnace. Henry H. Huff, Boston, Mass.

726,374—Furnace. Ralph S. Thompson, Springfield, Ohio.

726,338—Perforated-Bottom Furnace. Peter Patterson, McKeesport, Pa.

726,462—Heating-Stove. Charles A. Richardson, Kansas City, Mo.

726,288—Tool-Handle. Eli E. Hendrick, Carbondale, Pa.

726,365—Combination-Tool. Louis Smith, Chicago, Ill.

726,466—Hammer. George H. Rowe, Ennis, Tex.

726,577—Separable Hinge. George H. Schiek, Joliet, Ill.

726,626—Door-Holder. Thomas W. Brittengham, Hampton, Va.

726,237—Centrifugal Cream-Separator. Oscar Anderson, Kearny, N. J.

726,753—Churn. Willard B. Preston, Chicago, Ill.

726,827—Washing-Machine. George H. Rhodes, Healdsburg, Cal.

726,782—Wrench. Nathaniel B. Stone, Outlook, Wash.

726,645—Door-Check. George J. Connor, Boston, Mass.

The outlook for farm hands this coming year is not very bright. Men who work on the farm are growing less every year.—Neponsett (Ill.) Messenger.

CANADIAN PRODUCTION OF PIG IRON.

In 1902 Canada's total production of pig iron amounted to 319,557 tons, 74,581 tons, or 30.4 per cent, in excess of the production of 1901. In 1900 the output of Canadian plants amounted to 86,090 gross tons, against 94,077 tons in 1899, 68,755 tons in 1898, 53,796 tons in 1897, 60,030 tons in 1896, 37,829 tons in 1895 and 44,791 tons in 1894. Thus it will be seen that the production of 1902 is 613 per cent larger than that of 1894. Of the production in 1902 302,712 tons were made with coke and 16,845 tons with charcoal. A little over one-third, or 107,315 tons, was basic pig iron. The Bessemer pig iron made amounted to about 9,000 tons. Spiegeleisen and ferromanganese have not been made since 1899. On Dec. 31, 1902, the unsold stocks of pig iron in Canada amounted to about 20,000 gross tons, as compared with 59,472 tons at the close of 1901 and 12,465 tons at the close of 1900. On Dec. 31, 1902, Canada had fourteen completed blast furnaces, of which seven were in blast and seven were idle. Of these nine were equipped to use coke for fuel, four to use charcoal and one to use mixed charcoal and coke. In addition, four coke and two charcoal furnaces were being built on Dec. 31, 1902.

THE TALE THAT IS TOLD.

"Well," said the anecdotist, taking a fresh start, "to make a long story short——"

"Is a sacrifice we can hardly expect of the raconteur," interrupted the man who apparently never attempts to make friends by his affability.

ADVERTISERS' INDEX.

ALPHABETICAL LIST.

Acme Mfg. Co., The 54
Aitchison, The Robert Perf'd Metal Co 46
American Cutlery Co 55
American Radiator Co 2
American Steel Roofing Co 48
American Tinplate Co 46
American Wooden-Ware Mfg. Co 51
Atkins, E. C. & Co., The 60
Atlas Bolt & Screw Co 1
Atlas Mfg. Co 60
Auer Register Co 9
Auld & Conzer Co., The 48
Avery Stamping Co., The 55
Barnett, G. & H. Co 1
Beckwith, Estate of P. D 12
Berger Bros. Co 57
Berger Mfg. Co 43
Bergstrom Bros. & Co 9
Bertsch & Co 49
Biddle, J. N. & Co 56
Bigelow, J. E 42
Blacklock Foundry Co 56
Bluffton Cream Separator Co 51
Boynton Furnace Co 6
Brammer, H. F. Mfg. Co 52
Brand Stove Co 7
Brauer, A. G 44
Bridgeport Crucible Co 44
Bridgeport Gun & Implement Co. 2
Briscoe Mfg. Co 50
Buckeye Paint & Varnish Co 51
Burgess Soldering Co 49
Burton, The W. J. Co 1
Caldwell Mfg. Co 59
Canton Steel Roofing Co 46
Central Mfg. Co 56
Chappell Fur. Co., The 8
Clark Novelty Co 50
Clark, Quien & Morse 52
Clayton & Lambert Mfg. Co 49
Columbus Bolt Works 1
Connors, Wm. Paint Mfg. Co 1
Cooney & Geiger 60
Cope, Geo. W. Pattern Works 44
Cortright Metal Roofing Co 48
Crown Ventilator Co 43
Cutler Hardware Co 57
Denning Fence Works 42
Disston, Henry & Sons 54
Dixon, Jos. Crucible Co 42
Detroit Heating & Lighting Co 11
Dreis: Andrews & Krump 49
Duplex Latch Co 56
Dust, Wm. T. Co 44
Dwight Slate Machine Co 49
Ehle, F. G. O. Co 51
Electric Novelty Co 42
Eller, J. H. & Co 46
Enterprise Mfg. Co. of Pa 53
Evans Stamping & Plating Co 45
Ferrosteel Co 11
Forest City Foundry & Mfg. Co 3
Forest City Paint & Varnish Co 57
Foy, The E. A. Co 57
Fox Cutlery Co 52
Fox Typewriter Co 55
Friedley & Voshardt 48
Front Rank Steel Fur. Co 9
Fulper Pottery Co 52
Garry Iron & Steel Roofing Co 48
Galesburg Cornice Works 51
Geneva Tool Co 1
Globe Ventilator Co 60
Gobeille Pattern Works 44
Helios-Upton Co 45
Henry & Scheible Co 9
Herrick, F. A. & Co 56
Hoffman, Geo. W 43
Hopson & Haftencamp Co 10
Horigan Supply Co 55
Howes, S. M. Co., The 44
Huffman, Theo. P. & Co 60
Illinois Roofing & Supply Co 46
Joliet Stove Works 4
Jones, J. H 48
Kewanee Boiler Co 2
Kimball Bros. Co 56
Klauer Mfg. Co 47
La Crosse Steel Roofing & Corrugating Co 48
Lawrence Mfg. Co 51
Lee-Glass-Andreesen Hdw. Co 59
Leonard Mfg. Co 51
Lufkin Rule Co 5
March-Brownback Stove Co 7
Mayer & Co 2
McClure & Co 60
McVoy, John & Co 47
Merchant & Co 43
Meyers, The Fred J. Mfg. Co 50
Meyer Furnace Co 9
Milwaukee Corrugating Co 47
Milwaukee Pattern Works 44
Monroe Foundry & Furnace Co 7
Mueller, L. J. Furnace Co 8-10
Nat. Enameling & Stamping Co 50
Nicholson File Co 1
Norris & Loring Hdw. Co 42
North Bros. Mfg. Co 54
Obermayer, S. & Co 44
Osborn, The J. M. & L. A. Co 6
Pawling & Harnischfeger 45
Peck, C. A 55
Perkins, J. L. & Co 1
Peters Cartridge Co 2
Philadelphia Lawn Mower Co. The 57
Pittsburgh Stove & Range 6
Plume & Atwood Mfg. Co 44
Powers Bros 1
Pullman Mfg. Co 60
Roney Returner Co 50
Sayre Stamping Co 44
Schwab, R. J., & Sons Co 11
Seither & Cherry Co 51
Simpson Stove & Mfg. Co 10
Sitterly Novelty Works 57
Smith, Chas. Co 8
Smith & Hemenway Co 55
Sperry, D. R. & Co 56
Stanley Rule & Level Co 55
Stevens Arms & Tool Co 60
Stevens, F. B 45
Steward, D. M., Mfg. Co 46
Stimpson, Edwin B. & Son 46
St. Louis Electrotyping & Foundry Co 42
Stowell Mfg. & Fdy. Co 11
Stuber & Kuck 50
Sunlight Lava Mfg. Co 42
Sun Stove Co 5
Superior Mfg. Co 51
Sykes Steel Roofing Co 46
Symonds Mfg. Co 10
Taft, E. E. & Co 50
Tower Mfg. Co 56
Travilla, M 1
Turner Brass Works 49
Vance Boiler Co 2
Van Range Co., The John 5
Voss Bros. Mfg. Co 53
Warren Mfg. Co., J. D 42-48-52
Weber Gas and Gasoline Engine Co 52
Weiss, H. & Co 45
Weller Pattern Co 44
Welling-Bowers Mfg. Co 51
Western Furnace & Foundry Co 9
White Lily Washer Co 52
Willard, Wm. G 7
Woods, Alfred N 49
Young Mfg. Co., The 47

CLASSIFIED LIST.

Acetylene Burners.

Sunlight Lava Mfg. Co 42

Agricultural Tools.

Geneva Tool Co 1

Architectural Sheet Metal Work.

Berger Mfg. Co 43
Canton Steel Roofing Co 46
Friedley & Voshardt 48

Asphalt Roofing.

Perkins, J. L. & Co 1

Caldrons.

Sperry, R. D. & Co 56

Carpenters' Tools.

Acme Mfg. Co 54
Smith & Hemenway 55
Stanley Rule & Level Co 55

Cash Registers.

Biddle, J. N. & Co 56

Ceilings—Steel.

Berger Mfg. Co 43
Canton Steel Roofing Co 46
Eller, J. H. & Co 46
Friedley & Voshardt 48
Garry Iron & Steel Roofing Co 48
Illinois Roofing & Supply Co 46
La Crosse Steel Roofing & Corrugating Co 48
Milwaukee Corrugating Co 47

Churns.

American Wooden-Ware Mfg. Co 51

Conductor Pipe.

Clark, Quien & Morse 52
Illinois Roofing & Supply Co 46
Klauer Mfg. Co 47

Cornice Ornaments and Statuary.

Friedley & Voshardt 48

Corrugated Iron.

Garry Iron & Steel Roofing Co 48
McVoy, John & Co 47

Cranes—Traveling.

Pawling & Harnischfeger 45

Cream Separators.

Bluffton Cream Separator Co 51
Galesburg Cornice Works 51
Lawrence Mfg. Co 51
Nat'l Enameling & Stamping Co 50
Seither & Cherry Co 51
Superior Mfg. Co 51

Cutlery.

American Cutlery Co 55
Cutler Hardware Co 57
Fox Cutlery Co 52
Smith & Hemenway Co 54

Cut Offs.

Cooney & Geiger 60
Klauer Mfg. Co 47
Young Mfg. Co 47

Drills.

North Bros. Mfg. Co 54

Elevators.

Kimball Bros 56

Excelsior.

Huffman, Theo. P. & Co 50

Enamel Ware.

Nat'l Enameling & Stamping Co 50

Faucets.

Clark Novelty Co 51

Fencing

Denning Fence Works 42

Files.

Barnett, G. & H. Co 1
Disston, Henry & Sons 54
Mayer & Co 2
Nicholson File Co 1

Filters.

Fulper Pottery Co 52

Fire Arms.

Bridgeport Gun & Implement Co. 2
Peters Cartridge Co 2
Stevens, J. Arms & Tool Co 60

Fire Pots.

Clayton & Lambert Mfg. Co 49

Fixtures—Office.

Leonard Mfg. Co 63
Warren Mfg. Co., J. D 42-48-52

Flour Sifters.

Meyers, The Fred J., Mfg. Co 50

Flue Stoppers.

Welling-Bowers Mfg. Co 51

Foundry Supplies.

Obermayer, S. & Co 44

Fruit Press.

Enterprise Mfg. Co. of Pa 51

Furnace Cement.

Connors, Wm. Paint Mfg. Co 1

Furnaces—Tinners.

Clayton & Lambert Mfg. Co 48

Furnaces—Warm Air.

Bergstrom Bros. & Co 9
Boynton Furnace Co 5
Brand Stove Co 7
Chappell Fur. Co., The 8
Forest City Foundry & Mfg. Co 3
Front Rank Steel Fur. Co 8
Henry & Scheible Co 9
March-Brownback Stove Co 9
Meyer Furnace Co 9
Monroe Foundry & Furnace Co 7
Mueller, L. J. Furnace Co 8-10
Schwab, R. J. & Sons 11
Smith, Chas. Co 8
Western Furnace & Foundry Co 9

Galvanized Ware.

Briscoe Mfg. Co 50

Gas and Gasoline Engines.

Weber Gas and Gasoline Engine Co 52

Gun Cleaners.

Bridgeport Gun & Implement Co. 2

Hardware Specialties.

Acme Mfg. Co 54
Atkins, E. C. & Co 60
Atlas Mfg. Co 60
Atlas Bolt & Screw Co 1
Avery Stamping Co., The 55
Berger Bros. Co 57
Bigelow, J. E 42
Blacklock Foundry Co 56
Briscoe Mfg. Co 51
Caldwell Mfg. Co 59
Central Mfg. Co 56
Cutler Hardware Co 57
Disston, Henry & Son 54
Duplex Latch Co 56
Enterprise Mfg. Co. of Pa 51
Fox Cutlery Co 52
Herrick, F. A. & Co 56
Lawrence Mfg. Co 51
Lee-Glass-Andreesen Hdw. Co 59
Lufkin Rule Co 54
Mayer & Co 2
Meyers, The Fred J., Mfg. Co 50
Nat. Enameling & Stamping Co 50
Norris & Loring Hdw. Co 42
North Bros. Mfg. Co 54
Peck Hardware Co., C. A 55
Plume & Atwood Mfg. Co 44
Roney Returner Co 50
Sitterly Novelty Works 57
Smith & Hemenway Co 55
Sperry, D. R. Co 56
Stanley Rule & Level Co 55
Stuber & Kuck 50
Tower Mfg. Co 56
Woods, Alfred W 49

Heaters—Hot Water and Steam.

American Radiator Co 2
Boynton Furnace Co 6
Kewanee Boiler Co 2
Smith, Chas. Co 8
Vance Boiler Co 2

Heating Devices.

Burton, The W. J. Co 1
Detroit Heating and Lighting Co 11

House Furnishing Goods

Briscoe Mfg. Co 50
Enterprise Mfg. Co. of Pa 53
Meyers, The Fred J., Mfg. Co 50
Nat. Enameling & Stamping Co 50
Sperry, D. R. & Co 56
Stuber & Kuck 50

Knives.

Smith & Hemenway Co 55

Lawn Mowers.

Philadelphia Lawn Mower Co. The 57

Lawn Sprinklers.

Smith & Hemenway Co 55

Lightning Rods.

Foy, The E. A. Co 57

Mail Boxes.

Canton Steel Roofing Co 46
Peck, C. A 55

Metals—Perforated.
Aitchison, The Robert Perf'd Metal Co. 46
Stimpson, Edwin B. & Son. 46

Metal Workers Crayons.
Steward, D M., Mfg. Co. 46

Novelties.
Electric Novelty Co. 42
Sitterly Novelty Works 57

Oven Thermometers.
Evans Stamping & Plating Co. 45
Helios-Upton Co. 45

Paints.
Buckeye Paint & Varnish Co. 54
Connors, Wm. Paint Mfg. Co. 1
Dixon, Jos. Crucible Co. 42
Forest City Paint Co. 57

Pattern Letters.
St. Louis Electrotyping & Fdy. Co. 42

Polish.
Hoffman, Geo. W. 43
Stevens, F. B. 45

Radiators.
American Radiator Co. 2

Registers.
Auer Register Co. 9
Ferrosteel Co. 11
Mueller, L. J. Furnace Co. 8-10
Sc wib R. J. & S ns Co. 11
Stowell Mfg. & Fdy. Co 11
Symonds Mfg. Co 10

Roofing.
American Steel Roofing Co. 48
Auld & Conger 48
Berger Mfg. Co 43
Clark, Quien & Morse 12
Cortright Metal Roofing Co. 48
Eller, J. H. & Co. 46
Klauer Mfg. Co 47
LaClosse Steel Roofing & Corrugating Co 48
McVoy, John & Co 47
Milwaukee Corrugating Co. 47
Osborn, The J. M. & L. A. Co. 60
Perkins, J. L. & Co. 1
Sykes Steel Roofing Co. 46

Roofing Slate.
Auld & Conger 48

Sash Balance.
Pullman Mfg. Co. 60

Saws.
Atkins, E. C. & Co. 60
Disston, Henry & Sons 54

Saw Sets.
Disston, Henry & Sons 54
Smith & Hemenway Co 55

Scales.
American Cutlery Co. 55

Screw Drivers.
Acme Mfg. Co. 54
North Bros. Mfg. Co. 54

Shelves.
Cutler Hardware Co. 57

Shovels.
Avery Stamping Co., The 55

Skylights.
Jones, J. H. 48

Skylight Gearing.
Garry Iron & Steel Roofing Co. 48
Weiss, H. & Co. 45

Slate Machines.
Dwight Slate Machine Co. 49

Sporting Goods.
Stevens, J. Arms & Tool Co. 60

Stove Bolts.
Atlas Bolt & Screw Co. 2

Stove Lining.
Connors, Wm. Paint Mfg. Co. 1
Bridgeport Crucible Co. 44

Stove Patterns.
Cope, Geo. W. Pattern Works 44
Gobeille Pattern Works 44
Milwaukee Pattern Works 44
Weller Pattern Co. 44

Stove Polish.
Dixon, Jos. Crucible Co. 42

Stove Putty.
Connors, Wm. Paint Mfg. Co. 1

Stove Repairs.
Brauer, A. G. 44
Dust, Wm. T. Co. 44

Stoves and Ranges.
Beckwith, Estate of P. D. 12
Brand Stove Co. 7
Hopson & Hafencamp 9
Joliet Stove Works 4
March-Brownback Stove Co. 7
Pittsburgh Stove & Range Co. 6
Simpson Stove Co. 10
Sun Stove Co. 5
Travilla, M 1
Van Range Co., The John 5
Willard, Wm. G. 7

Stove Trimmings.
Atlas Bolt & Screw Co. 1
Columbus Bolt Wks. 1
Howes, S. M. Co., The 44
Sayre Stamping Co. 44

Tacks.
Tower Mfg. Co. 56

Tape Measures.
Lufkin Rule Co. 54

Tinners' Tools and Supplies.
Berger Bros. Co. 57
Bertsch & Co 49
Burgess Soldering Co. 49
Clayton & Lambert Mfg. Co. 48
Dreis: Andrews & Krump 49
Klauer Mfg. Co. 47
Lufkin Rule Co. 54
McVoy, John & Co. 47
Perkins, J. L. & Co. 1
Sayre Stamping Co. 44
Smith & Hemenway Co 55
Stanley Rule & Level Co. 55
Taft, E. E. & Co. 50
Turner Brass Works 49
Weiss H. & Co. 45
Young Mfg Co., The 47

Tinplate.
American Tinplate Co. 46
Illinois Roofing & Supply Co. 46
McClure & Co. 60
Osborn, The J. M. & L. A. Co. 60

Tinware.
Cooney & Geiger 60
Ehle, F. G. O. Co. 40
Nat. Enameling & Stamping Co. 40
Stuber & Kuck 40

Torches.
Clayton & Lambert Mfg. Co. 49
Turner Brass Works 49

Tools.
Acme Mfg. Co. 60

Tool Racks.
Herrick, F. A. & Co. 56

Typewriters.
Fox Typewriter Co. 55

Ventilators.
Crown Ventilator Co. 43
Globe Ventilator Co. 60
Merchant & Co 43
Powers Bros. 1

Washing Machines.
Brammer, H. F. Mfg. Co. 52
Clark, Quien & Morse 52
Voss Bros. Mfg. Co. 53
White Lily Washer Co. 52

Water Supplies.
Horrigan Supply Co. 55

Wrenches.
Acme Mfg. Co. 54

TURNED THE OTHER WAY.

"You can't judge by appearances, paw," said Farmer Sorghum's eldest daughter. "Beneath the roughest exterior may nestle the heart of gold."

The old man looked thoughtful.

"Thet sounds nice," he said, "but it seems to me it's jest the opp'site with a gold brick."—Cleveland Plain Dealer.

WOULD HURT LESS.

"Say, maw," sobbed the boy who had just been spanked, "I wish you had married that other beau instead of paw."

"Why, my son?" asked maw in surprise.

"Because I can see by his picture he had smaller hands."—Duluth Evening Herald.

UTILIZING THE FORCES OF NATURE IN EGYPT.

The huge success of the Nile dam led the British engineers in Egypt to look round and see if there be not other ways in which nature's forces may be harnessed for the benefit of humanity. Wind-power, water-power and solar-power are running to waste, but attempts are going to be made to utilize them. The wind currents will be used to drive motors, furnished with sails, over the desert; the cataracts of the Nile will be made to turn water-turbines and so generate electricity, while the scorching rays of the sun will be caught in huge mirrors and made to boil water in large steam engines.—Engineer and Iron Trades Advertiser.

OFFERED AN OPENING.

Newitt—Well, there's one thing about the weather. It's always a safe topic of conversation.

Borroughs—I thought it was to-day when I met Lendham, but when I started to speak of it he said: "Yes, it's unsettled, and that reminds me of that note of yours.—Philadelphia Press.

THE WRONG SIDE.

"I don't seem to make any impression on your father, Maude; and I've done my best to get on his right side."

"Try his left side, George. He hears better on that side."—Cleveland Plain Dealer.

IF THE DEVIL SHOULD RUN.

If the devil should run for office
Some people would think it a crime;
And, just like the rest o' them—
All o' the best o' them—
He'll still have a devil of a time.
—Atlanta Constitution.

A TESTIMONIAL.

A paper tells of a woman who, when asked for a testimonial for a tonic she had used, wrote the following: "Your medicine helped me wonderfully. Three weeks ago I was too weak to spank the baby. To-day I am strong enough to whip the old man, and I've done it, too."—Ex.

ADVERTISERS' INDEX.

ALPHABETICAL LIST.

Acme Mfg. Co., The 54
Aitchison, The Robert Perf'd Metal Co 46
American Cutlery Co 55
American Radiator Co 2
American Steel Roofing Co 48
American Tinplate Co 46
American Wooden-Ware Mfg. Co 51
Atkins, E. C. & Co., The 60
Atlas Bolt & Screw Co 1
Atlas Mfg. Co 60
Auer Register Co 9
Auld & Conger Co., The 48
Avery Stamping Co., The 55
Barnett, G. & H. Co 1
Beckwith, Estate of P. D 12
Berger Bros. Co 57
Berger Mfg. Co 43
Bergstrom Bros. & Co 9
Bertsch & Co 49
Biddle, J. N. & Co 56
Bigelow, J. E 42
Blacklock Foundry Co 56
Bluffton Cream Separator Co 51
Boynton Furnace Co 6
Brammer, H. F. Mfg. Co 52
Brand Stove Co 7
Brauer, A. G 44
Bridgeport Crucible Co 44
Bridgeport Gun & Implement Co. 2
Briscoe Mfg. Co 50
Buckeye Paint & Varnish Co 51
Burgess Soldering Co 49
Burton, The W. J. Co 1
Caldwell Mfg. Co 59
Canton Steel Roofing Co 46
Central Mfg. Co 56
Chappell Fur. Co., The 8
Clark Novelty Co 50
Clark, Quien & Morse 52
Clayton & Lambert Mfg. Co 49
Columbus Bolt Works 1
Connors, Wm. Paint Mfg. Co 1
Cooney & Geiger 60
Cope, Geo. W. Pattern Works 44
Cortright Metal Roofing Co 48
Crown Ventilator Co 43
Cutler Hardware Co 57
Denning Fence Works 42
Disston, Henry & Sons 54
Dixon, Jos. Crucible Co 42
Detroit Heating & Lighting Co 11
Dreis: Andrews & Krump 49
Duplex Latch Co 56
Dust, Wm. T. Co 44
Dwight Slate Machine Co 49
Ehle, F. G. O. Co 51
Electric Novelty Co 42
Eller, J. H. & Co 46
Enterprise Mfg. Co. of Pa 53
Evans Stamping & Plating Co 45
Ferrosteel Co 11
Forest City Foundry & Mfg. Co 3
Forest City Paint & Varnish Co 57
Foy, The E. A. Co 57
Fox Cutlery Co 52
Fox Typewriter Co 55
Friedley & Voshardt 48
Front Rank Steel Fur. Co 9
Fulper Pottery Co 52
Garry Iron & Steel Roofing Co 48
Galesburg Cornice Works 51
Geneva Tool Co 1
Globe Ventilator Co 60
Gobeille Pattern Works 44
Helios-Upton Co 45
Henry & Scheible Co 9
Herrick, F. A. & Co 56
Hoffman, Geo. W 43
Hopson & Haftencamp Co 10
Horigan Supply Co 55
Howes, S. M. Co., The 44
Huffman, Theo. P. & Co 60
Illinois Roofing & Supply Co 46
Joliet Stove Works 4
Jones, J. H 48
Kewanee Boiler Co 2
Kimball Bros. Co 56
Klauer Mfg. Co 47
La Crosse Steel Roofing & Corrugating Co 48
Lawrence Mfg. Co 51
Lee-Glass-Andreesen Hdw. Co 59
Leonard Mfg. Co 51
Lufkin Rule Co 5
March-Brownback Stove Co 7
Mayer & Co 2
McClure & Co 60
McVoy, John & Co 47
Merchant & Co 43
Meyers, The Fred J. Mfg. Co 50
Meyer Furnace Co 9
Milwaukee Corrugating Co 47
Milwaukee Pattern Works 44
Monroe Foundry & Furnace Co 7
Mueller, L. J. Furnace Co 8-10
Nat. Enameling & Stamping Co 50
Nicholson File Co 1
Norris & Loring Hdw. Co 42
North Bros. Mfg. Co 54
Obermayer, S. & Co 44
Osborn, The J. M. & L. A. Co 6
Pawling & Harnischfeger 45
Peck, C. A 55
Perkins, J. L. & Co 1
Peters Cartridge Co 2
Philadelphia Lawn Mower Co. The 57
Pittsburgh Stove & Range 6
Plume & Atwood Mfg. Co 44
Powers Bros 1
Pullman Mfg. Co 60
Roney Returner Co 50
Sayre Stamping Co 44
Schwab, R. J., & Sons Co 11
Seither & Cherry Co 51
Simpson Stove & Mfg. Co 10
Sitterly Novelty Works 57
Smith, Chas. Co 8
Smith & Hemenway Co 55
Sperry, D. R. & Co 56
Stanley Rule & Level Co 55
Stevens Arms & Tool Co 60
Stevens, F. B 45
Steward, D. M., Mfg. Co 46
Stimpson, Edwin B. & Son 46
St. Louis Electrotyping & Foundry Co 42
Stowell Mfg. & Fdy. Co 11
Stuber & Kuck 50
Sunlight Lava Mfg. Co 42
Sun Stove Co 5
Superior Mfg. Co 51
Sykes Steel Roofing Co 46
Symonds Mfg. Co 10
Taft, E. E. & Co 50
Tower Mfg. Co 56
Travilla, M 1
Turner Brass Works 49
Vance Boiler Co 2
Van Range Co., The John 5
Voss Bros. Mfg. Co 53
Warren Mfg. Co., J. D 42-48-52
Weber Gas and Gasoline Engine Co 52
Weiss, H. & Co 45
Weller Pattern Co 44
Welling-Bowers Mfg. Co 51
Western Furnace & Foundry Co 9
White Lily Washer Co 52
Willard, Wm. G 7
Woods, Alfred N 49
Young Mfg. Co., The 47

CLASSIFIED LIST.

Acetylene Burners.

Sunlight Lava Mfg. Co 42

Agricultural Tools.

Geneva Tool Co 1

Architectural Sheet Metal Work.

Berger Mfg. Co 43
Canton Steel Roofing Co 46
Friedley & Voshardt 48

Asphalt Roofing.

Perkins, J. L. & Co 1

Caldrons.

Sperry, R. D. & Co 56

Carpenters' Tools.

Acme Mfg. Co 54
Smith & Hemenway 55
Stanley Rule & Level Co 55

Cash Registers.

Biddle, J. N. & Co 56

Ceilings—Steel.

Berger Mfg. Co 43
Canton Steel Roofing Co 46
Eller, J. H. & Co 46
Friedley & Voshardt 48
Garry Iron & Steel Roofing Co 48
Illinois Roofing & Supply Co 46
La Crosse Steel Roofing & Corrugating Co 48
Milwaukee Corrugating Co 47

Churns.

American Wooden-Ware Mfg. Co 51

Conductor Pipe.

Clark, Quien & Morse 52
Illinois Roofing & Supply Co 46
Klauer Mfg. Co 47

Cornice Ornaments and Statuary.

Friedley & Voshardt 48

Corrugated Iron.

Garry Iron & Steel Roofing Co 48
McVoy, John & Co 47

Cranes—Traveling.

Pawling & Harnischfeger 45

Cream Separators.

Bluffton Cream Separator Co 51
Galesburg Cornice Works 51
Lawrence Mfg. Co 51
Nat'l Enameling & Stamping Co 50
Seither & Cherry Co 51
Superior Mfg. Co 51

Cutlery.

American Cutlery Co 55
Cutler Hardware Co 57
Fox Cutlery Co 52
Smith & Hemenway Co 54

Cut Offs.

Cooney & Geiger 60
Klauer Mfg. Co 47
Young Mfg. Co 47

Drills.

North Bros. Mfg. Co 54

Elevators.

Kimball Bros 56

Excelsior.

Huffman, Theo. P. & Co 50

Enamel Ware.

Nat'l Enameling & Stamping Co 50

Faucets.

Clark Novelty Co 51

Fencing

Denning Fence Works 42

Files.

Barnett, G. & H. Co 1
Disston, Henry & Sons 54
Mayer & Co 2
Nicholson File Co 1

Filters.

Fulper Pottery Co 52

Fire Arms.

Bridgeport Gun & Implement Co. 2
Peters Cartridge Co 2
Stevens, J. Arms & Tool Co 60

Fire Pots.

Clayton & Lambert Mfg. Co 49

Fixtures—Office.

Leonard Mfg. Co 63
Warren Mfg. Co., J. D 42-48-52

Flour Sifters.

Meyers, The Fred J., Mfg. Co 50

Flue Stoppers.

Welling-Bowers Mfg. Co 51

Foundry Supplies.

Obermayer, S. & Co 44

Fruit Press.

Enterprise Mfg. Co. of Pa 51

Furnace Cement.

Connors, Wm. Paint Mfg. Co 1

Furnaces—Tinners.

Clayton & Lambert Mfg. Co 48

Furnaces—Warm Air.

Bergstrom Bros. & Co 9
Boynton Furnace Co 5
Brand Stove Co 7
Chappell Fur. Co., The 8
Forest City Foundry & Mfg. Co 3
Front Rank Steel Fur. Co 8
Henry & Scheible Co 9
March-Brownback Stove Co 9
Meyer Furnace Co 9
Monroe Foundry & Furnace Co 7
Mueller, L. J. Furnace Co 8-10
Schwab, R. J. & Sons 11
Smith, Chas. Co 8
Western Furnace & Foundry Co 9

Galvanized Ware.

Briscoe Mfg. Co 50

Gas and Gasoline Engines.

Weber Gas and Gasoline Engine Co 52

Gun Cleaners.

Bridgeport Gun & Implement Co. 2

Hardware Specialties.

Acme Mfg. Co 54
Atkins, E. C. & Co 60
Atlas Mfg. Co 60
Atlas Bolt & Screw Co 1
Avery Stamping Co., The 55
Berger Bros. Co 57
Bigelow, J. E 42
Blacklock Foundry Co 56
Briscoe Mfg. Co 51
Caldwell Mfg. Co 59
Central Mfg. Co 56
Cutler Hardware Co 57
Disston, Henry & Son 54
Duplex Latch Co 56
Enterprise Mfg. Co. of Pa 51
Fox Cutlery Co 52
Herrick, F. A. & Co 56
Lawrence Mfg. Co 51
Lee-Glass-Andreesen Hdw. Co 59
Lufkin Rule Co 54
Mayer & Co 2
Meyers, The Fred J., Mfg. Co 50
Nat. Enameling & Stamping Co 50
Norris & Loring Hdw. Co 42
North Bros. Mfg. Co 54
Peck Hardware Co., C. A 55
Plume & Atwood Mfg. Co 44
Roney Returner Co 50
Sitterly Novelty Works 57
Smith & Hemenway Co 55
Sperry, D. R. Co 56
Stanley Rule & Level Co 55
Stuber & Kuck 50
Tower Mfg. Co 56
Woods, Alfred W 49

Heaters—Hot Water and Steam.

American Radiator Co 2
Boynton Furnace Co 6
Kewanee Boiler Co 2
Smith, Chas. Co 8
Vance Boiler Co 2

Heating Devices.

Burton, The W. J. Co 1
Detroit Heating and Lighting Co 11

House Furnishing Goods

Briscoe Mfg. Co 50
Enterprise Mfg. Co. of Pa 53
Meyers, The Fred J., Mfg. Co 50
Nat. Enameling & Stamping Co 50
Sperry, D. R. & Co 56
Stuber & Kuck 50

Knives.

Smith & Hemenway Co 55

Lawn Mowers.

Philadelphia Lawn Mower Co. The 57

Lawn Sprinklers.

Smith & Hemenway Co 55

Lightning Rods.

Foy, The E. A. Co 57

Mail Boxes.

Canton Steel Roofing Co 46
Peck, C. A 55

Metals—Perforated.
Aitchison, The Robert Perf'd Metal Co. 46
Stimpson, Edwin B. & Son. 46

Metal Workers Crayons.
Steward, D M., Mfg. Co. 46

Novelties.
Electric Novelty Co. 42
Sitterly Novelty Works 57

Oven Thermometers.
Evans Stamping & Plating Co. 45
Helios-Upton Co. 45

Paints.
Buckeye Paint & Varnish Co. 54
Connors, Wm. Paint Mfg. Co 1
Dixon, Jos. Crucible Co. 42
Forest City Paint Co. 57

Pattern Letters.
St. Louis Electrotyping & Fdy. Co. 42

Polish.
Hoffman, Geo. W. 43
Stevens, F. B. 45

Radiators.
American Radiator Co. 2

Registers.
Auer Register Co. 9
Ferrosteel Co. 11
Mueller, L. J. Furnace Co. 8-10
Scott R. J. & Sons Co. 11
Stowell Mfg. & Fdy. Co 11
Symonds Mfg. Co 10

Roofing.
American Steel Roofing Co. 48
Auld & Conger 48
Berger Mfg. Co 43
Clark, Quien & Morse 12
Cortright Metal Roofing Co. 48
Eller, J. H. & Co. 46
Klauer Mfg. Co 47
LaCrosse Steel Roofing & Corrugating Co 48
McVoy, John & Co 47
Milwaukee Corrugating Co. 47
Osborn, The J. M. & L. A. Co. 60
Perkins, J. L. & Co. 1
Sykes Steel Roofing Co. 46

Roofing Slate.
Auld & Conger 48

Sash Balance.
Pullman Mfg. Co. 60

Saws.
Atkins, E. C. & Co. 60
Disston, Henry & Sons 54

Saw Sets.
Disston, Henry & Sons 54
Smith & Hemenway Co 55

Scales.
American Cutlery Co. 55

Screw Drivers.
Acme Mfg. Co. 54
North Bros. Mfg. Co. 54

Shelves.
Cutler Hardware Co. 57

Shovels.
Avery Stamping Co., The 55

Skylights.
Jones, J. H. 48

Skylight Gearing.
Garry Iron & Steel Roofing Co. 48
Weiss, H. & Co. 45

Slate Machines.
Dwight Slate Machine Co. 49

Sporting Goods.
Stevens, J. Arms & Tool Co. 60

Stove Bolts.
Atlas Bolt & Screw Co. 2

Stove Lining.
Connors, Wm. Paint Mfg. Co. 1
Bridgeport Crucible Co. 44

Stove Patterns.
Cope, Geo. W. Pattern Works 44
Gobeille Pattern Works 44
Milwaukee Pattern Works 44
Weller Pattern Co. 44

Stove Polish.
Dixon, Jos. Crucible Co. 42

Stove Putty.
Connors, Wm. Paint Mfg. Co. 1

Stove Repairs.
Brauer, A. G. 44
Dust, Wm. T. Co. 44

Stoves and Ranges.
Beckwith, Estate of P. D. 12
Brand Stove Co. 7
Hopson & Hafencamp 9
Joliet Stove Works 4
March-Brownback Stove Co. 7
Pittsburgh Stove & Range Co. 6
Simpson Stove Co. 10
Sun Stove Co. 5
Travilla, M 1
Van Range Co., The John 5
Willard, Wm. G. 7

Stove Trimmings.
Atlas Bolt & Screw Co. 1
Columbus Bolt Wks. 1
Howes, S. M. Co., The 44
Sayre Stamping Co. 44

Tacks.
Tower Mfg. Co. 56

Tape Measures.
Lufkin Rule Co. 54

Tinners' Tools and Supplies.
Berger Bros. Co. 57
Bertsch & Co 49
Burgess Soldering Co. 49
Clayton & Lambert Mfg. Co. 48
Dreis: Andrews & Krump 49
Klauer Mfg. Co. 47
Lufkin Rule Co. 54
McVoy, John & Co. 47
Perkins, J. L. & Co. 1
Sayre Stamping Co. 44
Smith & Hemenway Co 55
Stanley Rule & Level Co. 55
Taft, E. E. & Co. 50
Turner Brass Works 49
Weiss H. & Co. 45
Young Mfg Co., The 47

Tinplate.
American Tinplate Co. 46
Illinois Roofing & Supply Co. 46
McClure & Co. 60
Osborn, The J. M. & L. A. Co. 60

Tinware.
Cooney & Geiger 60
Ehle, F. G. O. Co. 40
Nat. Enameling & Stamping Co. 40
Stuber & Kuck 40

Torches.
Clayton & Lambert Mfg. Co. 49
Turner Brass Works 49

Tools.
Acme Mfg. Co. 60

Tool Racks.
Herrick, F. A. & Co. 56

Typewriters.
Fox Typewriter Co. 55

Ventilators.
Crown Ventilator Co. 43
Globe Ventilator Co. 60
Merchant & Co 43
Powers Bros. 1

Washing Machines.
Brammer, H. F. Mfg. Co. 52
Clark, Quien & Morse 52
Voss Bros. Mfg. Co. 53
White Lily Washer Co. 52

Water Supplies.
Horrigan Supply Co. 55

Wrenches.
Acme Mfg. Co. 54

TURNED THE OTHER WAY.

"You can't judge by appearances, paw," said Farmer Sorghum's eldest daughter. "Beneath the roughest exterior may nestle the heart of gold."

The old man looked thoughtful.

"Thet sounds nice," he said, "but it seems to me it's jest the opp'site with a gold brick."—Cleveland Plain Dealer.

WOULD HURT LESS.

"Say, maw," sobbed the boy who had just been spanked, "I wish you had married that other beau instead of paw."

"Why, my son?" asked maw in surprise.

"Because I can see by his picture he had smaller hands."—Duluth Evening Herald.

UTILIZING THE FORCES OF NATURE IN EGYPT.

The huge success of the Nile dam led the British engineers in Egypt to look round and see if there be not other ways in which nature's forces may be harnessed for the benefit of humanity. Wind-power, water-power and solar-power are running to waste, but attempts are going to be made to utilize them. The wind currents will be used to drive motors, furnished with sails, over the desert; the cataracts of the Nile will be made to turn water-turbines and so generate electricity, while the scorching rays of the sun will be caught in huge mirrors and made to boil water in large steam engines.—Engineer and Iron Trades Advertiser.

OFFERED AN OPENING.

Newitt—Well, there's one thing about the weather. It's always a safe topic of conversation.

Borroughs—I thought it was to-day when I met Lendham, but when I started to speak of it he said: "Yes, it's unsettled, and that reminds me of that note of yours.—Philadelphia Press.

THE WRONG SIDE.

"I don't seem to make any impression on your father, Maude; and I've done my best to get on his right side."

"Try his left side, George. He hears better on that side."—Cleveland Plain Dealer.

IF THE DEVIL SHOULD RUN.

If the devil should run for office
Some people would think it a crime;
And, just like the rest o' them—
All o' the best o' them—
He'll still have a devil of a time.
—Atlanta Constitution.

A TESTIMONIAL.

A paper tells of a woman who, when asked for a testimonial for a tonic she had used, wrote the following: "Your medicine helped me wonderfully. Three weeks ago I was too weak to spank the baby. To-day I am strong enough to whip the old man, and I've done it, too."—Ex.

Trade Report.

CHICAGO IRON MARKET.

The actual sales for the past week have necessarily been small and for comparatively early delivery.

Buyers in general seem to have the feeling that the settling process will result in lower prices for the last half of the year.

This "bearish" sentiment is hardly unexpected, but those who are well informed as to both sides of the question do not think we shall see the downsweep of prices, which, as in the past, followed a period of high prices and prosperity.

Consumption is keeping up well, and notwithstanding the small sales which are being made, there is a strong undercurrent of interest and great activity in the matter of inquiries, and a close following of the market by consumers who expect to place large orders for extended delivery as soon as they are convinced that we are not on the verge of a very much lower range of prices.

BARS.

The market on iron and steel bars during the week has been fairly good, but still room for improvement. There is no concerted contracting movement among consumers, who are buying as their wants dictate, and in the majority of cases for deliveries three and six months ahead. The past year has been a bad one for manufacturers of windmills, carriages and wagons and of certain kinds of farming machinery, and many of the concerns will carry over good-sized stocks. Some implement manufacturers report that their requirements in the coming year will be nearly double those of last, and a few large contracts for steel have been closed in the past week, but concerns that have reports of this kind to make are in the minority. There is little demand for hoops, owing to strikes among coopers. We quote mill shipments, Chicago delivery, as follows: Bessemer steel, 1.76½c; angles, less than 3x3, 1.86½c, base; hoops in lots of 250 tons and greater, 2.06½c; less than this amount, 2.16c; iron, 1.80c to 1.85c. Prices on lots from store are as follows: Steel, 2c to 2.10c; iron, 2.15c to 2.20c; hoops, 2.40c to 2.50c; angles, 2.25c rates.

RAILS AND TRACK SUPPLIES.

There has been a heavy demand for rails the week closing and it is reported that a large Eastern producer has inquiries for standard sections from all its offices aggregating 500,000 tons, all for summer shipment. Only a small portion of this can be handled, and unless consumers are willing to take deliveries later in the year the balance will have to be held over until next year or purchased abroad. Orders have been booked in Chicago during the past week for 5,000 to 7,000 tons. There is a brisk demand for light rails and track supplies. We quote standard sections, 500 tons and over, $28; less than 500 tons to carload lots, $30; less than carload lots, $32; light rails, 45 pounds, $34 to $35; 12 pounds, $39 to $40, with regular differentials for intermediate sizes. Track supplies, mill shipments: Angle bars, 2c to 2.10c; spikes, first quality, 2.25c (out of store, carload lots, 2.35c to 2.45c rates); second quality, 2.10c; track bolts, 3½x¾, with square nuts, 2.85c to 3c per 100 pounds; with hexagon nuts, 3.05c to 3.15c, with usual differentials for other sizes.

SHOVELS AND SPADES.

Shovels and spades are experiencing a large volume of business and the manufacturers have some difficulty in making deliveries on account of scarcity of material and handles. There is, however, less complaint on this account now than a few weeks ago. The volume of business is such as to tax the capacity of the factories to the utmost, especially as there is also something of a scarcity of labor. Manufacturers whether in the association or out of it agree in referring to existing prices as being unpleasantly near actual cost of goods. Reports from some of the independent manufacturers indicate that they are succeeding in marketing their product at prices very closely approximate to those of the association.

BILLETS.

The market on billets is active and the demand urgent, aggregating 50,000 tons, with sales of 3,000 tons of Bessemer on the basis of $30, and 3,000 tons do, at $31.50, Youngstown. Jobbing sales of open hearth billets have continued to be made at prices ranging from $34 to $38, according to analysis, buyer and time of delivery. There has continued to be a good inquiry for foreign steel, with sales of 3,000 tons at $32.75 to $33.25, Chicago, according to size, for May, June and July shipment. There has also been an urgent inquiry for wire rods, with additional sales of 400 tons at $37.50, for Chicago, for May and June shipment and 500 tons for July delivery.

MERCHANT STEEL.

An increase is experienced in the demand for machinery, tire and spring steel has been experienced during the week, and several additional fair sized contracts have been placed by agricultural implement manufacturers for the 1903-1904 season. There has continued to be a fair inquiry for tool steel, but competition is still keen. The following are the prices current at Chicago for mill shipment: Smooth finished machinery steel, 2.01½c to 2.11½c; smooth finished tire, 1.96½c to 2.11½c; open hearth spring steel, 2.66½ to 2.76½c; toe calk, 2.31½ to 2.46½c; sleigh shoe, 1.86½c to 1.96½c; cutter shoe, 2.41½c to 2.61½c. Ordinary grades of crucible tool steel are quoted at 6½c to 8c for mill shipment; specials, 12c upward. Cold rolled shafting in carload lots sells at

47 and in less than carload lots at 42 discount from list.

WIRE NAILS.

New business is reported to be on the decrease but both the largest interest and independent mills are still well supplied with orders and shipments are being made more readily. The mills, however, are prevented from making full time for various causes and the market continues very firm in tone, full prices being readily realized. Some difficulty is experienced because of broken assortment of sizes. The jobbing trade has continued of satisfactory proportions. Official prices are $2.15 to $2.20 in carload lots, f. o. b. Chicago. Broken cars sell at 5 to 10 cents higher. For galvanizing 75 cents per keg and for tinning $1.50 extra per keg is charged.

CUT NAILS.

The inability to obtain steel continues and causes much delay in shipments. There has been a fair current order trade, and the market has remained firm in tone, sales being made on the basis of $2.30 in carload lots and $2.35 in less than carload lots for steel, Chicago. Iron nails are held at $2.45 to $2.50 per keg from store.

ROPE.

Sisal rope is quoted at 8¾c per pound.

GRINDSTONES.

Family grindstones No. 7 are $8.25 per dozen; No. 8 are $9.50 per dozen; No. 9 are $11.00 per dozen.

BITS.

New Jennings bits are quoted at a discount of 50 per cent.

AUGERS.

Carpenters' nut augers are quoted at a discount of 60, 10 and 5 per cent. Boring machine augers are quoted at 60, 10 and 5 per cent.

EAVE TROUGH.

Eastern Eave Trough is quoted at 75, and 16 2-3 per cent. Central eave trough is quoted at 75 and 12½ per cent; South Western eave trough is quoted at 75 per cent; Missouri River is quoted at 75 and 12½ per cent; Southern eave trough is quoted at 75 and 21½ per cent off.

CONDUCTOR PIPE.

The following grades of conductor pipe is quoted: Eastern nested, at a discount of 70 and 12½ per cent; not nested, 70 and 7½ per cent; Central nested at a discount of 70 and 7½ per cent; not nested, 70 per cent; Southwestern nested at a discount of 65 and 7½ per cent; not nested, 65 and 2½ per cent; Missouri River, 70 and 7½ per cent; not nested, 70 per cent; Southern, 65 and 10 per cent; not nested, 65 and 5 per cent.

SPIRITS TURPENTINE.

Owing to the freer arrival of the new crop at Savannah and lack of demand, coupled with an impression among the trade that the price of turpentine will be lower this year, the market has been weak. Stronger reports from the south caused prices to advance at this point, but not to reach last week's prices. Quotations, according to quantity, are as follows: Southerns, 49½ to 50 cents; machine made barrels, 50 to 50½ cents per gallon.

TIN.

Tin was quite firm yesterday. The New York closing was 30@30⅛c for spot to May for round lots. The jobbing price is steady at 31@32c; London was last cabled easy at £137 7s 6d for spot and £137 for futures.

TIN PLATES.

Tin plates are steady, with the jobbing quotations unchanged at: Melyn, $6.50@7; Alloway, $5.75@6.25; coke, $4.87½@6.50; ternes, $5.25@8; additional X, $1.50@1.75 more.

LEAD.

Lead is quiet but steady, the latest quotations on the New York exchange being 4.37½c. Here the jobbing quotation is 5@5¼c, according to quantity. The London quotation is £11 17s 6d; St. Louis, steady at 4.27½c; manufactured pipe, 7⅛c; sheet, 7¾c; tin pipe, 50c; tin-lined pipe, 12½c; old lead, in exchange,

SPELTER.

Spelter is quiet at: Round lots, New York, 5.75c for spot and futures; jobbing, 5⅝@5⅞c; sheet zinc, cask lots, 7@8c; small lots, 7¼@8¼c; St. Louis market is quoted quiet at 5.40c for prompt shipment. London, £21 7s 6d.

ANTIMONY.

Antimony is dull but steady: Cookson's, 8¼c; Hallett's, 6⅞c; United States, Star and other brands, 6½@6⅝c. The above prices are for round lots in New York; small lots, Hallett's, would cost 7¼@7½c in New York, and 7¾c here.

NICKEL.

Nickel is steady at 40@47c for large lots. Small lots as high as 60c.

PLATINUM.

Platinum is firm, with a good demand: New York, $19 per oz for large lots.

QUICKSILVER.

Quicksilver is steady: New York, $47.50 per flask for large lots; small orders, more; San Francisco, steady at $44.50@46, domestic orders; exports, $42@43; London is steady at £8 12s 6d.

ALUMINUM.

Aluminum is quiet and unchanged: No. 1 ingot, 33@37c per lb; No. 2, 31@34c; rolled sheet, 4c and up.

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x14	$10 25
IC	14x20	7 85
IX	14x20	9 10
IXX	14x20	10 35
IXXX	14x20	11 60
IXXXX	14x20	12 85
IC	20x28	15 45
IX	20x28	17 95
IXX	20x28	20 45

COKE PLATES.

Cokes, 180 lbs	IC	20x28	9 15
Cokes, 200 lbs	IC	20x28	9 35
Cokes, 216 lbs	IC	20x28	9 65
Cokes, 216 lbs	IX	20x28	11 75

PIG IRON.

Lake Sup. Charcoal	$24 00@$25 00
Local Coke Fdy No. 1	22 00@ 22 50
Local Coke Fdy No. 2	21 50@ 22 00
Local Coke Fdy No. 3	21 00@ 21 50
Local Scotch Fdy No. 1	22 00@ 22 50
Ohio Strong Softeners, No. 1	24 00@ 24 50
Southern Silvery	23 35@ 24 35
Southern Coke No. 1	21 35@ 22 35
Southern Coke No. 2	20 85@ 21 85
Southern Coke No. 3	20 35@ 21 35
Southern Coke No. 4	19 85@ 20 85
Southern No. 1 Soft	21 35@ 22 35
Southern No. 2 Soft	20 85@ 21 85
Alabama Car Wheel	28 35@ 29 35
Malleable Bessemer	22 00@ 23 00
Jackson Co. Silvery	29 30@ 30 30

BLACK SHEET STEEL.

No. 16	per 100 lbs.	$2 65
No. 18-20	per 100 lbs.	2 75
No. 22-24	per 100 lbs.	2 85
No. 25-26	per 100 lbs.	2 95
No. 27	per 100 lbs.	3 05
No. 28	per 100 lbs.	3 15
No. 29	per 100 lbs.	3 30

SMOOTH STEEL.

Wood's Smooth	No. 15-17	2 85
" "	No. 18	2 95
" "	No. 20	3 05
" "	No. 22-24	3 15
" "	No. 25-26	3 25
" "	No. 27	3 35
" "	No. 28	3 45

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON

F.O.B Chicago ..... 70&10%

HOOP IRON.

¾x22	¾x20	⅞x20
$3 20 100lbs.	$3 10 100lbs.	$3 00 100lbs.
1x20	1¼x19	1½x19
$2 90 100lbs.	$2 85 100lbs.	$2 75 100lbs.

PAINTED CORRUGATED IRON.

8 x 2½ feet Sheets, 28 gage, per 100 lbs. $2 50

SOLDER.

XXX Guaranteed ½&½ per lb.	20¼c
Commercial ½&½ per lb.	20¼c
No. 1 Plumbers	17¾c

SHEET ZINC.

600 lb. Casks base, per cwt.	$6.90
300 lb. Casks per cwt.	7.10
Sheets per cwt.	7.15

COPPER.

Copper ..... base, 24c

TIN PIGS AND BARS.

Banca, pigs, per lb	35@35¼c
Straits pigs, per lb	35c
Straits in bars, per lb	37c

LEAD.

American Pig	$4 60@4 62½c
Bar	6¼
National (White) brands (in less than 100 lb. lots) per lb	7¾c

HARDWARE.

ADZES.

Carpenters'.	
Ajax	50%
Blood's	40&5%
Hunt's	25%
White's	12½%
Coopers'.	
Barton's	20%
White's	15%
Ship.	
Ajax	50%
Blood's	40&5%
Hunt's	25%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.	
F L Waterproof, 1-10s	40c
G D	35c
Eley's	52c
Cartridges.	
Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol & Rifle	25&3%
Peters Cent Fire, Military and Sporting Ctgs	15&8%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.	
Peters Blank Ctgs. 22 cal	$1 18
Peters Blank Ctgs. 32 cal., C. F.	4 40
Peters B B Caps, Round ball	$1 44
Peters B B Caps, Conical ball	$1 85
U. M. C. Rim Fire Ctgs	50&3%
U. M. C. Cent. Fire, Pistol & Rifl	25&3%
Winchester Cent. Fire, Military and Sporting Ctgs	15&8%
U. M. C. B B Caps, Round Ball	$1 75..18%
U. M. C. B B Caps, Con. Ball	$1 85 net
U. M. C. Rim Fire Shot Ctgs	50&15&3%
U. M. C. Cent. " " "	25&15&3%
Primers.	
Berdan Primers	$1 00
Peters Primers	1 20
U. M. C. Primers	1 20
Winchester Primers	1 20
Shells.	
Pete.'s Empty Paper Shells, 10 and 12 gauge. League	25&2%
Peters Empty Paper Shells, 16 gauge. League	20&2%
Peters New Victor Nitro Shls	20&2%
Ideal	25&7%
Peters Loaded Shells. League and Referee Semi-Smokeless	40&1%
Peters New Victor Loaded Shells with King's Smokeless	40&6%
Ideals Loaded with King's Smokeless	40&10&10&1%
U. M. C. New Club, 16 gauge	20&2%
U. M. C. New Club	25&2%
U. M. C. Nitro	20&2%
U. M. C. High Base	20&2%
Winchester Blue Rivals	40&1%
Winchester Yellow Rivals	40&1%
Winchester Repeater	20&2%
Winchester Leader	40&6%
U. M. C. Loaded Shells, Black Powder	40&1% full cases
Winchester Loaded Shells, Black Powder	40&1% full cases
U. M. C.	Smokeless 40&10&10&1% full cases
Winchester	Smokeless 40&10&10&1% full cases
Gun Wads—per 1,000.	
Peters Gun Wads	18%
U. M. C. Gun Wads	18%

Powder.		Each
King's Smokeless, kegs		$11 30
" "	½ kegs	5 80
" "	¼ kegs	2 97
" "	1-lb. cans	51
" "	1-lb. " rifle	70
Dupont's	50-lb. drum	22 45
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6¼-lb. kegs	2 97
" "	1-lb. cans	51

Shot.	
Dropshot, sizes smaller than B, 25-lb. bags, per bag	$1 40
Drop shot, B and larger sizes, 25-lb. bags, per bag	1 65
Buck Shot, 25-lb. bags, per bag	1 65
Chilled Shot, 25-lb. bags, per bag	1 65

ANVILS.

Trenton, 70 to 80 lbs	9¾c per lb
Trenton, 81 to 150 lbs	9c per lb

AUGERS.

Boring Machine	60&10&5%
Carpenters' Nut	60&10&5%
Hollow:	
Ives' New Pattern	25%
Bonney's—list $30.00	65&10%
Stearn's, No. 1 doz.	$42 00
Stearn's, No. 3 "	33 50
Post Hole.	
Dalbey, 8-inch per doz.	$ 5 75
Digwell, 8-inch "	13 00
Howe's, 6 and 8-inch "	12 50
Vaughan's, 4 to 9-inch "	7 00
Rafting.	
Snell's	50&5%
Ship.	
Snell's, with or without screw	40&5%

AWLS.

Brad, handled per doz.	$0 26
shouldered, ass'd, 1 to 4 per gr.	1 10
patent, asst'd, 1 to 4 "	95
Harness, common "	1 20
patent "	95
Peg, shouldered "	1 10
patent "	40
Scratch, No. 2, handled "	4 50
No. 1, socket handled per doz.	1 15
Sewing, common per gr.	1 10
patent "	95

AXES.

Boys', Handled:	
Camp Fire, 3-lb., per doz	$5 75
" " 4-lb., freighters', per doz	6 75
Cast Steel, good grade, pr. dz.	5 50
Pioneer, per doz	6 75
Broad:	
Peerless	50%
Plumb's Canada Pattern, ½	50-10-5%
" Western "	40-10-5%
Red Warrior, per doz	$18 50
Firemen's, per doz	15 50
Single Bitted (without handles)	
Gladstone, per doz	$7 25
Hubbard's " "	6 50
Hunt's " "	6 50
Lippincott's " "	6 50
Mann's " "	6 50
Pioneer " "	6 75
U. S. A. " "	7 75
Valley Forge " "	6 00
Second Quality " "	5 75
Double Bitted (without handles):	
Lippincott's per doz	$8 50
Mann's " "	8 50
Pioneer " "	9 25
U. S. A. " "	11 00
Valley Forge " "	8 25
Ship, Blood's " "	18 50

BALANCES, SPRING.

Frary's	50%
Pelouze	20%

BAGS, PAPER NAIL.

Pounds	3	5	10	16	20	25
Per 1,000	$1 60	1 85	2 60	3 40	3 90	4 75

BARS, CROW.

Pinch or Wedge Point ..... cwt. $3 40

BEAMS—SCALE.

P. S. & W. Co 40%

BEATERS.

Carpet, Rattan	per doz	$2 40
Raymond's Steel Wire,	"	80
Woven Wire, No. 4	" "	1 10
Egg.		
Dover Pattern	per doz.	$0 70
Genuine Dover	"	0 90
Mammoth Dover	"	1 75
Lightning	"	0 84
Lyon's (standard size)	"	4 75
Whip, French	"	1 35
Spiral	"	0 40
Spoon	"	0 40
Surprise	per gro.	1 45

BELLOWS.

Blacksmiths'		70&5%
Hand, 8 in	per doz.	$ 6 85
10 in	"	8 40
Molders', 12 in	per doz.	13 00

BELLS.

Call.	
2¾ in. nickeled bell	per doz. $ 1 35
2¾ in. " brass bell"	3 60
3 in. " " " "	7 50
3 in. " silver alloy bell,	per doz. 16 50
4½ in. " brass bell and base	per doz. 14 50
Cow.	
Ordinary Goods	70&5%
High Grade	60&10%
Jersey	70&10%
Door.	
Bigelow Automatic	per doz. $9 50
Rotary.	
3 in. bronzed iron bell "	5 25
3 in. nickeled " " "	7 50
3½ in. " " " "	9 00
Hand.	
Hand Bells, Polished	60@60&10%
White Metal	50%
Nickel Plated	40%
Swiss	60&5%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, Steel Alloy,	50, 10 & 5%
Farm, lbs. 40 50 75 100	
Each. $1 10 $1 30 $1 85 $2 65	
Miscellaneous Cont.	
Strapped Sheep	per doz. $1 90
House Gong	40&5%
Sleigh, Round, Loose	40&5%

BELTING

Leather—List dated Nov. 12, 1901.	
Standard	75%
Eclipse	60&10%
Extra Grade	50&10%
Rubber—	
Standard	75&5%
Amherst	65&10%
Extra	60&2½%

BEVELS—TEE.

Stanley's, rosewood handle, new list	40&5%
Stanley' ron handle	40&5%

BINDING—OIL CLOTH.

Zinc	75, & 10%
Brass	75%
Brass Plated	75 & 10%

BITS.

Auger.	
Extra Double Spur	70&5%
Ford Improved	40&10%
Irwin	30&10%
New Jenning's	50%
Russell Jenning's	25&?½%
Clark's Expansive	50, 10&5%
Steer's " Small	
new list	$22.00
Irwin Car	30&10%
Snell's Car	60&5%
" Ship	40&5%
" " Auger Pattern Car	40&5%
Center	40&10%
Countersink—	
Wheeler's per doz.	$1 60
American Snail Head "	0 70
" Rose "	0 80
" Flat "	0 70
Buck Bros'. Flat "	2 60
German "	0 70
Dowel, New Jennings	40&10%
Gimlet—	
Standard Double Cut	50&5@50&10%
German Pattern per doz.	$0 48
Gouge "	0 80
Spoon "	0 80
Countersink "	1 30
Reamer—	
Buck Bros.' ½ Round. "	2 75
" " Square "	2 50
Standard ½ Round "	0 75
" Square "	0 75
German Octagon "	0 75
Screw Driver—	
Round Shank "	0 48
" " extra quality "	1 40
Square Shank "	1 10

BLACKING—STOVE. (See Polish.)

BLADES—SAW.

Butchers'—	
Standard ¾ & 1¼ in	60&5%
Clock Spring	60&5%
Star	30%
Hack—	
Disston's	25&5%
Griffin's	35&5%
Star	20%
Wood—	
Jackson's per doz.	$2 25
Disston's—No. 6, 16, 26 & 045, $4 20; No. 11, $6.30.	
W. M. & Co.'s No. 20 per doz.	$5 50

BLOCKS.

Snatch—	
Wooden	50&10%
Steel	40&10%
Tackle—	
Wooden	70&5%
Steel	50, 10&5%

BOARDS.

Stove	40%
Wash—	
Anchor per doz.	$1 60
Globe "	2 10
Banner "	2 60
Crystal "	3 15
Brass King "	3 15
Nickel Plate "	3 15
Enamel King "	3 15

BOBS—PLUMB.

Carpenters', 8½ oz. iron per dz.	$0 65
1½ lb. " " "	1 60
2¾ lb. " " "	1 80
13 oz. lead "	3 00
6½ oz. brass. "	3 30
Mason's, 3 lb. lead "	4 00

BOILERS—FARM.

Profit	30&5%
Solon	35&5%

BOLTS.

Carriage, Machine, Etc.	
Carriage	60&5%
Machine	60&5%
Elevator	50-10&5%
Plow	45&5%
Stove	80-5%
Tire	72½&5%
Wagon Box Strap	70&10%
Mortise Door—	
Gem	50-10&5%
Ives'	50&10%
Barrel—	
Cast	50%
Wrought	50&5%
" Bronzed	75&5%
Flush, Wrought, B. K.	40&5%
Spring—	
Wrought	75&10%
" Brass	75&10%

BOLTS—CONTINUED.
Square—
Cast....40%
Wrought....60-10&10%

BORERS.
Angular, Miller's Falls, per doz $12 75
Bung, Common Ring with Handle—
Inches.... 1½ 1¾ 2
Per doz....$6 00 6 90 8 10
Enterprise Mfg. Co., No. 1 List $1.50; No. 2, $2.00 each...25-10&5%

BOXES.
Mail, No.... 5 10 20
Per doz....$3 65 10 50 13 00
Mitre—
New Langdon....15&5%
Olmsted's....15%
Stanley's....30%
Seavey's....per doz 8 00
Twine, Nos... 20 30 25 121
Per doz....$4 50

BRACES.
Common Ball....$1 35@1 45
Barbers' Pattern....60&10%
Fray's Gen. Spofford's....50&10%
" No. 66 to 146....50&10&7½%
P. S. & W. Co.'s Peck's Adjustable....50-10&5%

BRACKETS.
Hay-Rack, Wenzelmann's No. 1, $12.50; No. 2, $13.00 per doz.
Shelf—
Cast Iron, Plain....50&10%
Stanley's Wrought Steel.......70-10&2½%
Wire....75-10&5%

BROILERS.
Wire....70&10%
Crown, Self-Basting, No.80..doz. $2 90

BUCKETS.
Pump Rubber—
Wychoff....per gr. $4 75
Cooper.... " 5 50
Champion.... " 7 50
Victor.... " 9 50
Star.... " 5 00
IXL.... " 6 75
Well—
Galv'd Qts..... 8 10 12
Per doz....$2 50 2 85 3 15
Wooden, top ear, plain, per doz 3 40
" " swivel " 4 65
" side-strap, plain " 3 50
" " swivel " 4 75

BUCKS, SAW.
Folding....per doz $1 75

BURS, RIVETING.
Copper Burs Only....35-10&5%
Tinners' Iron Burs Only....70%

BUTTS.
Cast-Iron....65&10%
Wrought Brass....20%
Wrought Steel Bright—
Nos. 800, 804, 808, 810, 814 and 834....70-10-10&5%
Nos. 838, 840 and 842...70-10-10&5%
Nos. 822 and 823..... 75-25-10-10&5%
Wrought Steel, Japanned—
Nos. 731 and 727....70&10&10%

CALIPERS.
Double....40&10%
Inside and Outside....40&10%
Wing....40&5%

CALKS.
Logger's Boot,(Lufkin R. Co's.)....per M $3 65
Toe.
Shoenberger....per lb. 5c
Bessemer.... " 5½c
American.... " 7¼c
Swedes.... " 8¾c

CANS.
Cheese Factory Can Stock—
Gallons.... 15 20 30 40
Per set....$2 90 $3 15 $3 75 $4 75
Milk Cans—Gals.. 5 8 10
Elgin Pat., each, $ $2 00 $2 25
Iowa " 1 65 1 90 2 10
New Elgin " 2 10 2 25
New York " 2 10 2 35
Oil—
1 Gal. glass, Daisy....per doz. $2 35
1 " cushioned " 3 90
Star, gals..... 1 2 3
Per doz.... $1 85 $3 00 $3 90
Per doz.
Champion Faucet, 5 gallon...$ 5 65
Sterling Tilting....5 " ... 8 25
"High C" Pump...5 " ... 9 25
Eureka Pump.....5 " ... 12 25
Wood Jacket....50-10&5%

CAPS—GUN.
See Ammunition.

CARRIERS.
Hay—
Myers' Imperial....each $3 40
" Clover Leaf.... " 3 40

CARTRIDGES.
See Ammunition.

CASTERS.
Acme—Ball Bearing....35%
Bed....65&10%
Common Plate—
Brass wheel....60&10%
Iron and porcelain wheel....60%
Philadelphia Plate....70%
Martin's....40-10&5%
Payson's....75%
Tucker's—Wood and iron wheel..70%
" Rubber wheel....65&10%

CATCHERS—GRASS
Lieder's No. 1....per doz, $6 25
Eureka.... " 4 25
Ideal No. 4.... 50

CHAIN AND CHAINS.
Breast Chains—
Doubleslack....doz. pairs $5 00
With Covert snaps " 4 75
" slide.... " 2 90
Without slide.... " 2 60
Bright Ox Chains—
5-16in. $6 75: ⅜in. $5 75 per 100 lbs.
Bright Coil Chain—
American, new list....33⅓%
German....60-10&5
Triumph, new list....30%
Cable Coil Chain—
Inch.... 3-16 ¼ 5-16 ⅜
Per 100 lbs....$9 75 $7 25 $5 90 $4 75
Inch.... 7-16 ½ ⅝ ¾
Per 100 lbs....$4 60 $4 50 $4 35 $4 25
Cable Log Chain—Advance 25c per 100 lbs. on Cable Coil.
Cow Tie Chains—
American 2 toggle....40-10 & 5%
" toggle and snap, 40-10&5%
" open and closed ring....40&5%
Halter Chains—
American, new list....33⅓%
German....60-10&5%
Niagara, new list....40&5
Triumph, "....30%
Jack Chain—
Brass....60%
Iron....60%
Picture Chains—
Light Brass, 3 ft....per doz. 63c
Heavy " 3 ".... " 75c
Pump Chain—Galvanized per 100 lbs....$4 45
Safety Chain—Brass....60&10%
Stretcher Chains—
5-16 in., $7.75—⅜in., $7.00 per 100 lbs.
Tie-Out Chains—Browns....70&10%
Trace Chains—Western Standard—
6½— 6-2....per pair 26c
6½— 8-2.... " 30c
6½— 8-3.... " 29c
6½—10-2.... " 35c
7 —10-2.... " 40c
Add 2c per pair for Hooks.
" 2c " for Twist Link.
Wagon Stay Chains—
Inch ¼ 5-16 ⅜
Per 100 lbs. $6.50 $6.00 $5.25
Well Chains—
With Swivel....per doz. 95c
Without ".... " 80c

CHALK-CARPENTERS'.
Blue....per gross 58c
Red.... " 48c
White.... " 38c
Common White Sch'l Crayon.... " 5½c
D. M. Steward Mfg. Co. (Case lots 30%)
Metal Workers' Crayons,....gr.$2.50
Soapstone Pencils, round flat or square....gr.$1.50
Rolling Mill Crayons.gr.$2.50
Railroad Crayons (composition) gr.$2.00

CHARCOAL.
In barrels....per bu. 21c

CHECKS-DOOR.
Blount....30%
Blum-Jap'd, $6.25; Brzd., doz... $7.00
Columbia....50, 10&5%

CHISELS.
Box—
Inches.... 10 12 14
Round...per doz. $2.10 $2.25 $2.75
Flat....per doz. 2.85 3.60 4.20
Cold—
Good quality....per lb. 12@ 20c
U.S.A.,extra quality..per lb. 28c
Socket, Framing and Firmer—
Barton's.... 20%
P. S. & W. Co's.... 70%
For beveled back, add..per doz.... 60c
Tanged, Firmer—
P. S. & W. Co's....35&5%
With Handles add... per doz. 60c
Choppers, Enterprise Meat—
No. 12....$2 75
No. 22.... 4 50

CHUCKS-DRILL.
Standard Tool Co.'s....40%
Goodell's, for Goodell's Screw Drivers....per doz. $6.25
Yankee, for Yankee Screw Drivers.... 5.00

CHURNS.
Anti-Bent Wood, Gal.. 5 7 10
Each....$3.85 4.10 4.30
Belle, Barrel.... 70%
Common Dash, Gal.... 4 5 7
Per doz....$6.75 7.50 8.00
Union, Gal.... 5 7 10
Each....$3.65 3.90 5.00

CLAMPS
Adjustable—Martin's.... 40%
Carpenters'—Steel Bar.... 30%
Carriage Makers'—P. S. & W. Co.'s....40, 10&5%
Hose—
Sherman's, brass, ¾ in.,....per doz. 33c
Double, brass, ¾ in...per doz. 65c
Saw Filers—
Disston's list, $30.00.... 30%
Stearn's, No. 0, $3.50, No. 1, $11.50, No. 3, $5.50 doz.
Wentworth's.... 40%

CLAWS-TACK.
Cast, wood hdle...per doz., 45@ 60c
Forged steel, wood handle....per doz. 80c
Solid Steel....per doz. $1.60
Giant....per doz. .60

CLEANERS.
Pot--Wire....per doz. $0.45
Side-Walk—Steel....per doz. 3.15
Window—
Peerless....50, 10&5%
XLCR....65&10%

CLEAVERS.
Butchers'—F. R. Plumb's....35&5%
Family—Ajax, In.... 6 7 8
Per doz....$5.50 5.75 6.25

CLEVISES.
Malleable....per lb. 4¼c

CLIPS.
Axle....65&5%
Damper—
Standard....per doz. $0.70
Troy.... " .38
Hame.... " .20

CLOTH.
Emery—
Ajax....50&10
B. & A....50
Hardware Wire--full rolls (100 ft.)
2 to 8 mesh black, per 100 sq. ft. $1.85
9 to 12 " " " " 2.15
2 to 8 " galv, " " 2.70
7 and 8 " " " " 3.25
An extra charge is made for 50 ft. lengths, and a still further advance for smaller pieces.
Screen Wire--
12 mesh, painted, per 100 sq.ft. $1.15
14 " " " " 1.85

COCKS--BRASS.
Compression Bibb....60&10&5%
" Lock....60&10%
Lever Bibb....60&10%
Liquor....per doz..$8 75
Racking....60&10%

COFFEE MILLS.
Enter. Mfg. Co., list Jan 17, '93...25%
Parker's....50%
Arcade....60&10%

COLLARS--STOVE PIPE.
Inches 5 6 7
Plain Tin....per gr.$2.50 $2.80 $3 75
Japanned Tin, " 3.90 4.20 5.40
Lacquered Brass" 3.30 3.60 4.80

COMBS--CURRY.
Nos. 000 20 321 330 417 416
Per doz.$0.32 .80 1.00 .95 .80 1.00
Nos. 531 533 530 535 545 390
Per doz $0.96 1.20 1.10 1.65 1.40 1.30

COMPASSES.
Carpenter's....70%
Pencil--Faber's....per doz.$1.00

COOLERS--WATER.
Galvanized Lined—Lever Faucet.
Gal. 2 3 4 6 8
Each $1.35 1.65 2.00 2.35 2.95
Galvanized Lined—Telegraph Faucet
Gal. 2 3 4 6 8 10 15
Ea$1.65 2.00 2.35 2.65 3.30 3.65 4.90
Porcelain Lined—
Gal. 3 4 5 6 7 8 10
Ea$4.50 5.75 7.00 7.75 8.60 10.40 12.25

COPPER—SEE METALS.

COPPERS.
Soldering--1 to 2 lb....per lb. 25@29c
3 lb. and larger.... " 23c

CORD.
Picture--White Wire--List October 1900....80&10%
Sash--
Baltic Braided Flax...per lb. 18½c
India Hemp, cable laid " 13 c
" " hawser " " 12 c
" " plain " " 13½c
Italian " cable " " 21½c
Russian " " " " 17 c
Samson, white " 31½c
" spot " 30½c
Silver Lake, white " 24½c
" " drab " 31½c

CORKSCREWS.
Humason & Beckley....33⅓%
Walker's....33⅓%
Williamson's Regular....50%
Williamson's Forged Worm....50%

COTTERS--SPRING.
5-16 in. and smaller....80&5%
⅜-in. and larger....75%

COUPLINGS--HOSE.
Brass....per doz. $1.00
Brass Plated.... " 85

COVERS, WAGON--SEE TENTS.

CRADLES--GRAIN.
Morgan's Grapevine..per doz.$21 00

CRAYONS--SEE CHALK.

CROOKS--SHEPHERDS'.
American Pattern....per doz. $6 75
Montana " .... " 8 00
Scotland " .... " 8 00

CROW BARS.
Pinch or Wedge Point, per 100 lbs....$3 40

CUTTERS.
Meat--
Enterprise Nos. 5, 10, 12, 22, 32, and 42....25%
No. 100, list, $18.00....40&10%
Nos. 2 and 4....35%
Ideal....per doz. $9.75
Universal....No. 1 2 3
Per doz....$10.75 $13.00 $18.00
Pipe-Stanwoods No. 1 2 3
Each....$ .85 1.50 4.00
Slaw and Crout--
3-knife Crout....per doz. $9.25
1 " Slaw.... " 1.35
2 " " .... " 2.00
Washer.... " 7.75

DAMPERS—STOVE PIPE.
Standard....50&10%
American....40&10%

DIES--STOCKS AND
Discount....40%

DIGGERS—POST HOLE.
Atlas....per doz. $8.50
Eagle.... " 6.25
Eureka.... " 6.50
Hercules.... " 10.25
Ryan's.... " 17.00
See also Augers—Post Hole.

DIVIDERS.
Wing....70%
Extension Wing....35&5%

DOORS--SCREEN.
⅞ in. 4 panel painted per doz. $ 6.75
1⅛ " " " " 7.25
in. 4 panel natural pine, fancy....per doz.. 11.25

DOOR HANGERS—BARN.
Single Flange, D. B. Rail,....per 100 ft. 1 60
Novelty Check Back,.... 3 in 4 in 5 in 6 in
Per doz. pairs, $2.60 $3.90 $4.95 $6.25

DRILLS.
Bit Stock....60% &65&5%
Blacksmith's Twist....60%
Breast--
Common....each, $2,25
Millers' Falls.... " 2.10
Hand--
Goodell's Automatic--per doz.
No. 01 No. 03 No. 3 No 20
$7.75 $12.50 $14.25 $11.00
Goodell's Single Gear per doz. $16.00
Millers' Falls " " " 12.50
" " Double " " 15.00
Reciprocating—
Goodells'....per doz. $17 00
Bit Stock.
Standard List....60&5%@60%@10%

DRIVERS--SCREW.
Standard....65&10%
Ajax....70&5%
Champion....50%
" Pattern....75&5%
Clark's Interchangeable.... 33⅓%
Reed's Lightning....50%
Goodell's Spiral....50&10&5%
Yankee Ratchet....50%
" " Spiral....50&10&5%

ELBOWS.
Conductor....60%
Adjustable Stove—In. 5 6 7
Smooth....per doz. $0.95 0.95 1.40
Plan'd.... " 2.10 2.35 3.00
Corrugated Stove—In. 5 6 7
Smooth....per doz. $0.95 .95 1.40
Pol'd.... " 1.70 1.75 2.60
Plan'd.... " 2.60 2.85 3.50
Four-Piece Stove—In. 5 6 7
Smooth....per doz. $0.57 .60 .93
Pol'd.... " 1.00 1.05 1.50
Plan'd.... " 1.50 1.70 2.60

EMERY--TURKISH.
Size....5-lb. pkgs. ½ kegs, kegs.
No. 60 to 150, ⅌ lb. 6¼c 4¾c 4½c
Flour.... " 5¼c 3¾c 3½c

ENAMEL—IRON.
English, ½-pt. cans...per doz. $1.50
Nubian, " " ... " 1.80
O. V. B., " " ... " 1.25
Peerless.... 1 50

EXTRACTORS--PIG.
See Forceps, Pig.

EYES.
Bright Wire Screw—See Goods, B.W.
Drifting Pick....60&10%
Hooks and--
Brass....60&5%
Iron....65&10%

FASTENERS, STORM SASH.
Moore's....per doz. $0 80
Schroeder's.... " 1 50
Sensible.... " 1 10

FASTENERS, BLIND.
Zimmerman's....Net

FAUCETS.
Angle Plug....per doz. $0 84
Brass--Andrew's....60&10%
Petroleum....60-10&5%
Wood--Cedar....40&50%
Cork Lined....60%
Metal Key....65&5%
Measuring--Enterprise....35&5%
See also Cocks.

FILES AND RASPS
Arcade....75&5%
Black Diamond....70&10%
Disston's....75&10%
Great Western....75&5%
Keystone Mill....80&20%
Kearney & Foote....75&5%
Mill, 2d quality....80&10&5%
New American....75&10&5%
Nicholson's....70&10%
Royal Mill....80@20%
N. S. A....70&10&5%

FILTERS.
Improved Natural Stone.$2 50@13 50
Subject to large discounts.

FORCEPS—PIG
Barber's....per doz, $7 25
Superior.... " 4 75
Whisson's Imp.... 6 00

FORKS
Barley—
Steel....66⅔, 10&5%
Wood, 4 tines,$5.25: 6 tines,$6.25 doz
Coal....70, 10&2½%
Coke....70, 10&2½%
Cottonseed....70, 10&2½%

FORKS—CONTINUED.

Hay—
Diamond, 2 tine.....65, 10&5%
" 3 " .....60, 7½, 10&5%
" 4 " .....66⅔, 10&5%
Golden Eagle, tine 60,7½,10,10&5%
" " " ..66⅔,10,10&5%

Header—
Diamond, 2 tine.....67½&10&5%
" 3 " .....60, 20, 10&5%
" 4 " .....66⅔&10&5%
Golden Eagle, 4 tine.....10&10&5%

Manure—
Diamond .....60, 20, 10&5%
Golden Eagle.....60, 20, 20&5%

Ore.....70&10%

Potato—
Digging..... .....65&10&5%
Scoop .....70&10%

Spading—
Diamond ..... 70, 5, 10&5%
Golden Eagle.....70, 5, 10, 10&5%

Hack Saw— FRAMES
Crown.....per doz., $ 8 75
Miller's Falls..... " 10 00
Star..... " 2 85

FREEZERS—ICE CREAM

Arctic—Qts... 1 2 3 4 6
Each.....$1 10 1 30 1 50 1 75 2 30
Qts..... 8 10 12 15
Each.....$2 85 3 75 4 50 5 20

White Mountain, with Crank—
Qts..... 1 2 3 4 6
Each.....$1 20 1 65 1 90 2 10 2 70
Qts..... 8 10 12 15
Each.....$3 60 4 60 5 90 7 00

GATES.

Molasses and Oil.
Perfection.....40&10&5%
Stebbin's.....75&10&5%

GAUGES.

Butt and Rabbet.
Stanley R. & L. Co.'s ..20&10&2½%

Cream Pail, Fairmont, per doz..$3 75

Marking, Mortise, etc.....
....50&10%@50&10&5%

Saw—Atkin's sgle. 55c, dbl. 80c pr doz.

Wire.
Disston's.....25%
P. S. & W. Co.'s.....20%

GIMLETS.

Discount..... ....40@40&10%

GLASS—WINDOW.

All sizes, single strength....90-15&5%
" double strength...90-15&5%

GLASSES—LEVEL.

Stanley R. & L. Co.....50&5%

Bulk. GLUE
B Amber.....per lb 9¾c
A White.....per lb 12½c
H. S. Amber.....per lb 17 c

Liquid.
Eagle .....40 %
LePage's—
List "A".....37½%
List "B".....33⅓%
List "C".....25 %

GOODS.

Bright Wire..... 80-10&5%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gr. $5.00
Frazer's..... 9.25
Hub Lightning..... 5.25
Paragon..... 6.75

Wood Pails.
Frazer's, 15 lb. 78c, 25 lb. $1.30 each.
Hub Lightning, 15 lb. 52c, 25 lb. 68c each.

Tin Cans.
1 lb. Frazer's carriage, pr. doz. $1.30
1½ lb. " wagon . " 1.30
3 lb. " " " 2.40
5 lb. " " " 3.50

GRIDDLES

Soapstone.....40&5%

GRINDSTONES

Family—In..... 7 8 9
Per doz $8 25 9 50 11 00

Loose.
Per ton .....$20 00@$21 00

Mounted—
Ball Bearing..... 1 2 3
Each $3 10 2 90 2 75
Common Bearing.. 1 2 3
Each $2 85 2 65 2 50

Schofield's—
Auto.....each, $3 30
Bitreadle..... " 3 10

HAFTS—AWL

Brad—Common.....per doz., $0.18

Peg—
Common..... " 21
Patent, plain top..... " 46
" leather top .. " 52

Sewing—
Common..... " 21
Patent..... " 52

HALTERS

Jute Rope.....per doz., $0 80
Sisal Rope..... " 1 95
Web ..... " 2 10
Leather, rope tie..... " 6 25
" leather tie... " 8 25

HAMMERS—HANDLED

Blacksmiths' Hand
Maydole's .....40&10%
Plumb's .....50&10&5%

Engineers'—
Maydole's .....40&10%
Plumb's Oil Finish.....60%
" Polished .....50 7 10&5%

Farriers'.
Maydole's ....35&5%
Plumb's .....40&5%

Machinists'.
Maydole's .....40&10%
Plumb's. .....50&10&5%

Nail.
Ajax.....per doz $5 75
Calumet..... " 3 40
Cast..... per doz $1 10@$1 50
Maydole's .....30&7½%
Plumb's.....40&5%
Vulcan .....35&5%

Riveting.
Maydole's.....35&5%
Plumb's .....40&5%

Shoe. Plumb's.....30&5%
Cast.....per doz 75c

Tack.
All Iron .....per doz $0 35
Pol'd Iron, Hickory hdl " 0 52
Mall. Iron, Inlaid..... " 1 50
Magnetic 1 2 3
Per doz..... 70c 80c 95c
Magazine.....per doz $4 75

HAMMERS—HEAVY

Heavy Hammers and Sledges.
Under 5 lbs.....70&10%
5 lbs. and over 75%

Masons'—Single & Double Face..75%

Auger. HANDLES.
Common Ass'd.....per doz $0 36
Peck's Adjustable.... " 2 10
Roger's " .... " 4 15
Ives' " ....per set 1 25

Axe.....40%

Chisel.
Hickory, Tanged Firmer, Assorted, 24c; Large, 26c per doz.
Hickory, Socket Firmer, Assorted, 18c: Large, 21c per doz.
Applewood, Tanged Firmer, Assorted, 27c; large, 36c per doz.
Applewood Socket, Firmer, Assorted .....per doz 24c

Coal Pick 40%

Drifting Pick..... .....40%

File, assorted 13c, large 16c per doz.

Hammer.
Adze Eye.....per doz 42c
Blacksmiths'.....per doz 45c@65c
Machinists'..... " 39c@58c

Hatchet.....per doz 42c

Hay and Manure Fork.....40&5%

Hoe and Rake .....40&5%

Saw, Plain 72c, Varnished 68c per dz.

Screw Driver, Assorted 42c, Large 48c per doz.

Shovel and Spade .....40&5%

HANGERS

Barn Door—
King .....per doz. prs., 5 00
Monarch .....60&10%
"Never Jump" Hinge.... ..50&10%
Peerless, Loose Axle.... ..60&10%
Perfection, Roller Bearing..70&5%
Phœnix, Roller Bearing... 70&5%
Prouty .....per doz. prs., $5 50
Rival..... " " 3 90
Superb ..... " " 6 25
Safety Flexible " " 7 50
Wagner's Adjustable.....70@10%
Warehouse 60%

Parlor Door—
Acme.....per set $3 75
Ives' Improved ..... " 2 50
Lane's Standard..... " 3 50
" New Model.... " 2 80
Prouty..... " 3 00
Lundy.....50&10%

Eave Trough—
Baker's.....per gr., $2 60
Imperial 10%
Wire 25%

HASPS.

Hinge, Wrought.....50, 25, 10, 10&5%
With Staples—See Staples.

HATCHETS.

Ajax .....40&10&5%
Blood's.....40&10%
Cast Claw.....per doz $1 50@$1 75
Cast Shingling.... " 1 20
Duffy's Barrel.....per doz 17 50
Germantown .....35&5%
Hammond's 40%
Plumb's .....40&10&5%
Plumb's Warehouse.....40%
Roger's Ideal.....per doz $5 25
Underhill's Star Lath.....40%
S. A.....30&10%

HAY RACK BRACKETS.

Wenzlemann's No. 1, per doz...$12 60
" No. 2, " ... 13 20

HINGES.

Blind.
Clark's Gravity, per doz sets....80c
Parker's.....65%
Shepherd's Noiseless, for Wood casing.... .....doz. $1 05

Gate.
Clark's, 1 2 3
Hgs & Ltchs, dz.. $2 35 $2 60 $3 60
Hinges Only, " .. 1 70 1 90
Latches Only," .. 0 70 0 75
Knuckle.....per doz prs $6 00
Leed's..... " sets 6 75
Superior ..... " prs 9 25

Spring.
American.....25%
Bommer Bros. Ball B'rng Floor 40%
Bommer Bros. Spring Hinges .40%
Chicago.....25&5%
Clover Leaf.....per gro $9
Columbia Dbl. Acting....40&10&5%
Gem 25%
Ideal Detachable,....per gro $12 00
New Idea ..... " 9 60
Oxford.....20%

Wrought Iron.
Light Strap Hinges..70-25-10-10&5%
Heavy Strap Hinges.....
.....75-10-25-10-10&5%
Light T Hinges....66⅔-25-10-10-&5%
Heavy T Hinges....60-5-25-10-10&5%
Extra Heavy T Hinges.....
.....75-25-10-10&5%
Cor. Heavy Strap..75-10-25-10-10&5%
Cor. Ex. Heavy T....75-25-10-10&5%

Screw Hook and Strap.
6 to 12in.....per 100 lbs. $4.00
14 to 20in ..... " " 3.75
22 to 36in ..... " 3.50

Screw Hook and Eye.
⅝ to 1in .....per 100 lbs. $6.50
⅝in ..... " " 8.00
½in ..... " 10.00

HOES.

Garden.....75&10&5%

Grub:
Ajax .....50&10&5%
Extra.....60&10%
Hazel.....per doz $6 25
Ladies' and Boys'.....70, 10, 5, 10&5%
Mortar.....75, 7½, 10&5%
Planter's Eye.....60&10&2½%
Weed .....70, 10, 10&5½%

HOOKS.

And Eyes.
Brass .....50&10&5%
Iron..... .....65&10%

Awning.....per gro $1 50

Belt.....75&5%

Bench—See Stops, Bench.

Box, In. 6 8 10 12
Doz.. $1 25 $1 60 $1 70 $2 25
Humason & Beckley's...pr dz $2 40
(See Goods, Bright Wire.)

Bush.
Common Axe Handle
..... per doz $7 00@$8 50
Hamilton Pattern.....per doz $7 25

Chain—In. ¼&5-16 ⅜ 7-16 ½
Per 100 $7 50-7 75 $9 50 $11 25 $12 00

Clothes Line.
Japanned.....per doz 21c@22c
Galvanized..... " 35c

Coat and Hat.
Cast Iron.....per gro 72c@$1 00
Gem Wire.....65%

Conductor.
Malleable.....50&10%@50&10&5%
Wrought.....40&10%@50%

Corn.
Common, unpolished, per doz. $1 30
" polished... " 1 70
"Cut Easy," .....per doz. 2 65
Clyde's, ... " 2 40
Brooke's..... " 2 65

Gate.—See Goods, Bright Wire.

Grass.
Common, Nos. 2 3 4
Per doz..... $1 70 $1 75 ——
German .....per doz $1 90
Little Giant..... " 3 10
Wood's..... ... " 1 30

Hammock.
Common..... " 21c
With Plate..... " 36c
With Screw..... " 36c
Piggot's..... " $1 05

Lambrequin or Drapery...per gro 21c

Picture .....50%@50&10%

Potato and Manure.....70&10&7½%

Screw, Brass.....80&20%
(See Goods, Bright Wire.)

Seat Spring .....per lb 6½c

HOOPS—TUB.

Ever Ready..... per case $1 65

HOSE—GARDEN.

Ply 3 4 5 6 8
Black, pr ft. 7½c 8½c 9¾c 10¾c 12½c
Cotton, 3 ply.....per ft 6¾c
Red, 3 ply ..... " 7¾c

HUSKERS.

Boss.
Nos. E A B P PX
Dz.$1 85 $2 00 $1 95 Gr.$5 90 $5 20
Nos.2000 3000 4000 O OX
Gr.$3 10 $6 75 Dz.$1 15 $2 20 $1 65

Brinkerhoff's.....per gro 14 50

Harrington.....per gro 4 20

Ideal—Nos. 102 101 100
Per doz..... $1 35 $2 50 $2 75

Johnson's.... .....per gro 7 75

IRON.

See Metals—First column.

IRONS.

Curling.
Common ....per doz 33c@48c
Princess.....per doz $0 60
Yale..... " 0 84
Oxford..... " 1 10
Ruby ..... " 1 50
Tourist, Folding ..... " 0 90

Pinking..... " 0 60

Plane.
Wood Bench.....20&5%
Stanley R. & L. Co. (new list)25&5%

Sad.
Charcoal.....per doz $11 25
Common, Polished, per 100 lbs 3 50
" " Nickel Plated, " 4 75
Chinese Polishing.....per doz 7 60
Laundry, No. 1, $5 75; No. 2, $6 25 per doz.
Mrs. Pott's.
No. 50 J, Enterprise...per set 76c
No. 55 J, " ... " 73c
No. 50 T, " ... " 79c
No. 55 T, " ... " 76c
No. 50, Howells ..... " 77c
No. 55, " ..... " 74c
Tailors' Sad .....per lb 4¼c
" Geese..... " 4¼c

Tuyere.
Single Duck Nest.....per doz $5 25
Double " " ..... " 6 25
Sutton.....each 2 60

JACKS.

Locomotive .....75&5%

Wagon.
Meeker's .....per doz $11 25
Miller's No. 2 ..... " 7
Winner..... " 7

KETTLES.

Brass.....20%
Caldron.....50%
Copper.....per lb 27½c
Maslin.....65&10%
Sugar .....50&10&5%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade.dz $4 :5
" 12-in. Straight " .dz 2 50

Cooper's Hoop ... .15%

Corn.
Acorn.....per doz $2 65
Ajax..... " 2 25
Clipper, Light, $1 75; Heavy, $1 90 per doz.
Disston's.....per doz $3 15
Easy ..... " 7 75
Rugged Razor ..... " 2 40
H. S. Earle's ..... " 3 15

Drawing.
Standard.....70%
Adjustable 30%
Barton's Carpenters'.....10&5%
" Folding Handle....25&5%

Hay.
American, Sickle Edge...doz $10 25
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 25
Lightn'g, Holt's Genuine " 6 50
Lightning Pattern..... " 6 25
Wadsworth's Sp'r Point. " 8 75

Hedge.
Ajax, Heavy, $5 75; Ex. Heavy, $7 75 per doz.

Mincing.
Common, Single .....per doz 48c
" Double..... " 65c
Streeter, 4 Blade, $1 30; 6 Blade, $1 90 per doz.

Putty.
Common.....per doz 84c
Goodell's.....per doz $1.30@$1 80
Russell's..... " 1 75@ 2 25

KNOBS.

Base, 2½-in. Maple, Rubber Tip,
.... per gro $1 60

Door, Mineral.....per doz 0 80
Porcelain ..... " 0 90
Jet..... " 0 88

Picture.....60&10&5%

LADDERS.

Common Long .....per ft 8½c@13c

Extension .....per ft 10¾c

Step.
Common..... " 6½c
" With Shelf, add 10c.
I X L.....per ft 17c
Miller's Household. per ft 13c@15c

LANTERNS.

Bull's Eye Police.
3-in Flash Light.....per doz $6 00
2¾-in Regular..... " 4 00
3-in Regular..... " 5 00

Tubular, Berger.....40&10&5%

LEADERS—CATTLE.

Nos. 1 2 3
Per doz.... $0 70 $0 85 $3 75

LEATHER—LACE.

Cut .....50&10%

Sides, Ex. Quality.....per sq ft 20c

LEATHERS—PUMP.

Valve and Plunger.....50%

LIFTERS.

Stove Cover.
Japanned.....per gro $2 75
Coppered..... " 3 60
Chilkoot..... " 4 75
Devore's..... " 5 50
Zero ..... " 3 90

Transom, Payson's.....70&10%

LINES.

Chalk, Twisted in 20-ft hanks.
Nos. 15 14 13 12 11
Per doz.. 10c 12c 17c 22c 29c
Twisted in 50-ft balls.
Nos. 1 2 3 4
Per doz..... 24c 30c 36c 44c
Braided in 20-ft hanks.
Nos. 0 1 2
Per doz..... ..... 23c 25c 32c
Masons', in 100-ft hanks...doz $1 00

Clothes.
60-ft Jute .....per doz $0 90
72-ft " ..... " 1 00
60-ft Sisal ..... " 1 50
72 ft " ..... " 2 00
60-ft Cotton..... " 1 25
50-ft Braided Cotton 90%

LINING—STOVE.

In Bricks.....per crate 42c

MACHINES.

Boring	Without Augers.	With Augers.
Ajax .....per doz	$5 25	$6 75
Angular... "	3 25	5 00
Boss ..... "	4 50	5
Upright... "	2 90	4

Leather Riveting.
Chicago, Pomeroy ....per doz $9 75
Excelsior..... " 2 50
Handy..... " 2 10
Little Giant..... " 3 10
Pony, Pomeroy..... " 8 00

Washing.
Boss. 1 2 5 3
Per doz.. $57 00 $63 00 $69 00 $60 00
Globe, No. 1.....per doz $51 00
O K Rotary..... " 58 00
Round Wayne..... " 26 50
U. S. Steel..... " 60 00
Western Square, No. 2, $26 50; No. 3, $28 50 per doz.

MALLETS.

Carpenters'.
Fibre Head, Small. Med. Large.
Per doz.... $5 00 $5 75 $6 75
Round Hickory.....per doz $1 75
" Lignumvitæ.... " 2 75
Square Hickory..... " 1 75
" Lignumvitæ .. " 3 25
Tinners'.
Applewood ..... " 1 65
Hickory..... " 0 80
Hickory Sheet Iron. "
Door. MATS.
National Rigid.....60&5%
Queen Flexible 50%
Stove.
Standrd Quality.....per gross $2 75
Best " (Pure) " 4 75
Wire Covered Asbestos, Ex. Heavy .....per doz 1 00

MATTOCKS.
Ajax.....53&10%
Extra.....60&5%

MAULS.
Iron, lbs. 10 13 16 18 21
Per doz. $3 40 $4 20 $5 00 5 50 $6 00
Wood face, lbs. 10 11 12
Per doz..... $4 75 $5 00 $5 25
Wood Choppers'.
Lake Super'r & Oregon Pat.70&10%

MEASURES.
¼ pk 1 pk ½ bu
Galvanized..per dz $3 75
Japanned.... " $1 50 2 25 $2 90
Iron Bound. " 1 40 1 70 2 00
Babbitt. METAL.
Alm.....per lb 8¾c
Best..... " 23c
Common, No. 4..... " 6½c
Copper Mixed..... " 18½c
Magnolia Metal..... " 19c
Tony..... " 10¼c
See Metals—In first column.

MICA.
First Quality.....40, 10&5%
Second Quality..... .....60%

MILLS—COFFEE.
Enterprise.....25&5%
National.....30%
Parker.....50&10%@60%

MOPS.
Erie .....per doz $3 15
Handled Cotton.
Lbs. ¾ 1 1¼ 2
Per doz.. $1 40 $2 10 $2 25 $2 95

MOWERS—LAWN.
Ball-Bearing.
In. 15 17 19 21
Each..... $7 00 $7 60 $8 25 $8 90
Champion.
In. 12 14 16 18 20
Ea.. $2 10 $2 15 $2 15 $2 20 $2 35
Champion, High Chief.
In. 16 18 20
Each..... $3 40 $3 70 $4 00
Cheap Grades.
In. 12 14 16 18
Each..... $1 90 $1 95 $1 95 $2 10
Clipper .....50&10&10%
Girard, in. 14 16
Each $2 60 $2 80
Philadelphia.
All Styles Except A & E.....70&5%
Style A.....60&5%
Style E, High Wheel.....70,10&5%
Drevels.....50%
All Day.....Net Price
Horse. MUZZLES.
Nos. 1 2 3 4 5
Doz.$0 30 $0 50 $0 55 $0 70 $1 00
Horse Shoe. NAILS.
Ausable.....50%
Capewell 10%
Perfect.....40&5&
Putnam 83⅓%
Star 35%
Picture.
Brass Head.....40&10%
Judd's .....40&10%
Brads.....80&10&10%
Wire Nails—Small lots.....$2.30
Car load lots..... 2.20

NETTING—POULTRY.
Galvanized Before Weaving.80&20
" After Weaving...80&15
Cut Pieces.....65&5%

NIPPERS.
End Cutting.
P. S. & W. Co.....40&5%
Stubb's Pattern .....40&10&5%
Hoof.
Heller's.....40&5%
P. S. & W. Co.....40&10%
V. & B 40-5%
Hose. NOZZLES.
Genuine Boston.....per doz $3 40
Genuine Gem..... " 3 60
Magic ..... " 3 60

NUTS—HOT PRESSED.
Square Blank.
In. ¼ ⅜ ½ ⅝ ¾ ⅞ 1
Lb. 7½c 5¼c 4⅞c 4⅝c 4⅜c 4¼c 4¼c
Square Tapped.
In. ¼ ⅜ ½ ⅝ ¾
Lb. 14c 9½c 7¼c 6⅝c 6¼c

OILS.
Linseed, Pure boiled .....per gal 45c
" " raw..... " 44c

OILERS.
Chase Pattern.
Brass and Copper .....50&10%
Zinc.....70&5%
Engineers'.
Cannon .... 4 &5%
Steel .....60&10&5%
Tin.....per doz $2 25@$2 75
Machine.
Ajax.....per doz $0 80
Copper Plated Steel... " 1 50
Malleable Iron.....40&10&5%
Tin.....per doz 55c@65c

OPENERS.
Box, in. 10 12 14
Flat....per doz $2 85 $3 60 $4 15
Round.. " 2 10 2 25 2 "
Can.
American.....per doz $0 26
Delmonico..... " 1 50
Never Slip..... " 0 68
Perfect ..... " 1 35
Tip Top..... " 0 84
Crale, V. & B..... " 5 75

OUTFITS—COBBLING.
Combination ....per doz $11 50
Economical .... " 4 90
Family..... " 10 00

PADLOCKS.
Standard Wrought.....70&10&5%
Champion 50%
Eureka..... .....40&10&5%
Yale.....60&5%

PAILS.
Cream.
14-qt., Without Ga....per doz $3 00
20-qt., " " .... " 3 50
20-qt., With Gauge.... " 5 00
Sap, 10-qt., Galvanized, $1 60; 12-qt., Galvanized, $1 85 per doz.
Stock, Galvanized.
Quarts. 14 16 18 20
Per doz... $3 75 $4 00 $4 65 $5 25
Water, Galvd, qts. 10 12 14
Per doz..... $2 00 $2 30 $2 60
Wood.
Cable, 2-Hoop, $1 70; 3-Hoop, $1 90 per doz.
Cedar, 3-Hoop, $2 50 per doz.
Standard, 2-Hoop, $1 55: 3-Hoop, $1 75 per doz.

PANS.
Dripping.....50&10&5%
Fry, Common.....60&10&5%
Acme .....66⅔&5%
Roasting.
Brownie.....Each 30c@37c
L. & H..... " 58c@80c
Building. PAPER.
Plain.....per 100 lbs $1 15
Tarred..... " 1 25
Tarred Felt..... " 1 80
Diamond A, Red Rosin.pr roll 0 63
Leader, Red Rosin..... " 0 48
Sand and Emery.
Ajax.....50&10%
B. & A.....50 & 5%
Wrapping.
Grecian Express .....per lb 3⅜c
Rag ..... " 2½c
Apple. PARERS.
Bay State .....per doz $13 00
Reading ..... " 6 75
Turntable ..... " 6 00
White Mountain..... " 5 25
Potato.
Goodsell's Saratoga..per doz. $6 50
White Mountain..... " 6 00

PICKS
Adze Eye Ore.....60&5%
Drifting and Poll Picks.....60&10%
Ajax Railroad.....50&5%
Extra Railroad.....60&10%
Surface.....60&10%

PINCHERS.
Carpenters', wrt. iron, pol. steel jaws.....30%
Blacksmiths'.....50%
P. S. & W.....40&10&5%
Clothes. PINS.
Common.....per gr..$0 12
Hoyt's..... " .. 30
U. S..... " .. 70
Picket.
Fluted.....per doz..$0 90
Round..... " .. 1 75
Spiral ..... " .. 1 90

PIPE.
Conductor. Nested Not nested
Eastern .....70&12½% 70&7½%
Central .....70&7½% 70%
Southwst'n.. 65-&7½% 65&2½%
Mo. River....70&7½% 70%
Southern .....65&10% 65&5%
Lead.
Full coils.....per lb..$0 6½
Cut " ..... " .. 6¾
Stove.
Acme—In. 5 6 7
Smooth, per jt. 10½c 10½c 12½c
Planished, " ..32c 33c 43 c
Peerless--Smooth..8⅞c 9c 11½c
Polished. 16c 18c 22 c
Planished 28c 31c 40 c
Made-up—In. 5 6 7
Smooth..... 8¾c 9c 12 c
7 to 6 in. Smooth Tapers, pr jt..14c
6 in, Smooth T's..... " ..30c
7 to 6 in. Planished Tapers.....45c
Wrought Iron Gas Pipe.
⅜-in., black.....discount, 60%
½ " ..... " 63%
¾-in. to 4-in , black.... " 69%
4½ " 6 " .... " 66%
7 " 12 " .... " 64%
¾ " galvanized " 48%
½ " " " 50%
¾ " to 4 " " 56%
4½ " " 6 " " 52½%
7 " " 12 " " 50%

PLANES.
Ohio.....60&5%
Stanley Planes, new list..30%@30&5%
Bailey Planes 35%
Sandusky.....20%
Corn, PLANTERS.
Monitor.....per doz..$7 75
Triumph..... " .. 6 00
Potato
Acme.....per doz.. $6 25
Challenge ..... " .. 10 75
Fencing.
Cronk's.....per doz..$9 25
Farmers' Choice..... " .. 8 75
Russell's..... " .. 8 65
Flat and Round Nose.
Bernard's..... .....30%
German.....50%
Lodi.....40%
Paragon.....40&10%
P. S. & W. Co. 60%
Gas--In. 8 10 12
Per doz.....$3.10 $4.00 $4.90

PLUMBS AND LEVELS.
Common.....75%@75&10%
Cook's.....40%
Davis' Iron 30%
Davis' Inclinometer.....20%
Stanley's
Nos. 00S 0S 2S 3S
Per doz..$4.50 $5.20 $7.60 $8.65
Nos. 30 25 50 35
Per doz.$13.00 $17.50 $17.50 $12.35

POINTS. Discount
Drive Well Points.....80&10&5%

POKERS--STOVE.
Wr't Iron, str't or bent, per doz.$0 50
Wr't Iron, wood hand'ls " 75
Nickel pl'td. coil hdl's.. " 70

POKES--ANIMAL.
American .....per doz.....$2 60
Brown's, wr't steel " ..$5 25@6 25
Eagle..... " $4 25
Success..... " 2 60

POLES--FISHING.
Bamboo.
Ft. 12 14 16 18 20
Pr 100..$2.75 $3.40 $4.75 $6.00 $7.75

POLISH.
Metal.
Pride of the Bar..... " .. 1 60
Putz Cream.
Pts. 1-6 ¼ ½
Per doz.....$0.84 $1.25 $1.80
Pts. 1 2 4 8
Per doz.$3.60 $6.00 $9.00 $18.00
Wondershine
Pts. 1-6 ½ 1 2
Per doz...$0.68 $1.30 $2.15 $3.00
Shoe.
M. D. C.....per doz..36c@50c
F. C. O..... " 40c
T. M ..... " 50c@$1 25
Imperial.....per gr.....$5 00
Stove.
Black Eagle, 1 lb cans, pr gr..$15 00
Blackene, 1 lb cans.... " .. 13 00
Black Jack, ¾ lb cans. " .. 9 00
Dixon's Carb. of Iron. " .. 5 75
Nickel Plate..... " .. 4 50
Rising Sun ..... " .. 6 00

POPPERS, CORN.
Round or Square, 1 qt. per doz., 85@95c
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 30
1 qt. reversible .....per doz., 1 60

POTS—FIRE.
Bernz.....each..$3 85
Clayton & Lambert's,each,$4 75@6 25
Gate City.....each.. 6 25
Gem ..... " .. 6 75

POWDER.
See Ammunition.

PRESSES—FRUIT AND JELLY.
Enterprise Manufacturing Co... 25%
Henis .....per doz. $2 10

PRUNERS.
Disston's Pole.....per doz..$7 50
Henry's Improved..per doz..65&10%
Water's Improved. " 70, 10&5%

PULLERS.
Cork.
Modern.....each..$2 60
Quick and Easy..... " .. 2 90
Nail.
Giant.....per doz..$9 00@10 50
Giant Pattern. " .. 6 00
Tack--Giant .... " .. 60

PULLEYS.
Awning--Jap'd.....40&5% to 35&5%
Clothes Line..... .....20&10%
Hay Fork.
Iron Wheel, 5 in .....per doz..$1 70
Wood Wheel, 6 in ... " .. 1 60
Wood Wheel, 6 in... pass knot..... " .. 1 75
Hot House--Jap'd .....30&5%
Screw..... " .....30&5%
Side..... " .....30&5%
Sash.
Chicago .....per doz..$0 29
Clark's..... " .. 43
Common Sense, 2 in.. " .. 27
" Pattern, 2 in.. " .. 22
Empire..... " .. 24
Ideal..... " .. 24
Ottumwa. ball b'ring " .. 34
Grand Rapids, No. 17 " .. 24
" " No. 11 " .. 25

PUMPS
Pitcher Spout.
Nos. 1 2 3 4
Each.....$0.98 $1.10 $1.20 $1.45
Spray.
Blizzard.....per doz..$14 25
Cyclone, tin..... " .. 3 90
" copper..... " .. 6 75
Daisy..... " .. 8 75
Little Giant.....each.. 2 40

PUNCHES.
Conductors', No. 22....per doz..$2 50
Machine.....per lb . 19
Saddlers'.
Common.....per doz..60c@70c
Good..... " ..72c@84c
Spring.
1 Tube .....per doz. $2 25

PLATES--TIN.
See Metals in Column 1.

PLIERS.
Button's--In. 4½ 6 8 10
Per doz.....$2.60 $3.10 $3.90 $5.20
Button's Pattern.
In. 4½ 6 8 10
Per doz. $2.25 $2.50 $3.45 $4.40
Cutting.
Cronk's Comb.....per doz..$6 25
Bernard's.....30%
Lodi.....40&10&5%
Stubb's.....50%
4 Tube, revolving.... " .. 5 25
Tinners'.
Hollow.....40%
Solid.....each..5½c

PUTTY.
In Bladders.
Strictly pure .....per 100 lbs. $2 35
Commercial ..... " " 2 10

RAIL.
Barn Door.
Light Wrought.. .....per ft. 3c
Safety .... " 5½c
Single Flange ..... " 1⅞c
Smith's Wro't Bracket—plain 3¼c
Smith's Special 4½c
Smith's "Never Jump".....11c 50%
Smith's Plain Steel.....30%
Smith's Milled Steel 4¼c
Sliding Door.
Painted Iron .....per ft. 4½c
Bronzed wr't iron..... " 8½c

RAKES.
Coal or Road.....per doz. $5.25
Garden.
Steel, braced .....70&10&5%
Steel, bow.....70,5,10&5%
Malleable iron, heavy.....70@10%
Hay—Wood.....per doz. $1 05@1 70
Lawn—Wood.
Common .....per doz. $2
Automatic..... " 6 00
New Lawn Queen .... " 3 60
Jumbo, 36 teeth ..... " 5 75

RASPS—See Files.

REGISTERS.
List Sept. 1, 1901.
White Japanned .....75&10%
Nickle Plated.....75&10%
Copper .....75&10%
Electro Plated Brass 50%

RINGS
and Ringers—Hog.
Blair's Rings .....per doz. 60c
Blair's Ringers ..... " 84c
Brown's Rings..... " 65c
Brown's Ringers..... " 90c
Champion Rings..... " $2 35
Champion Ringers..... " 1 70
Hill's Rings..... " 48c
Hill's Ringers..... "70c@95c
Mazor Rings ..... " 80c
Mazor Ringers ..... " $1 15
Perfect Rings ..... " 84c
Perfect Ringers..... " $1 05
Wolverine Rings..... " 1 50
Wolverine Ringers.... " 70c
Bull.
Copper, 2½-in. 3-in.
per doz..... $1 35 $1 70
Steel.....per doz. 95 1 05
Steel, Nickel Pl't'd, 2½-in., doz. 1 35
Rea's Self Piercing.. .....$1.95
Fruit Jar—White .....per lb. 30c
Key.
Split, round.....per doz. 1
Split, square ..... " 33c
Ball, round..... " 33c

RIVETS.
and Burrs.
Copper Belt .....50&10&5%
Coppered Iron 75%
Tinners'.....75%
Hame.....per lb.
Slotted Clinch .....per doz. 70c@75c
Tubular—Nos. 1 and 2, assorted sizes.....per doz. 60c

ROPE.
Per lb.
Manila, 7-16 inch diameter and larger.....11½c "
Sisal, 7-16 in. and larger.. 8¾c "
Cotton.
¼ and 5-16-in. on reels...per lb. 12c
¼ and 5-16-in. in coils... " 12½

RULES.
Boxwood.....60%
Ivory .....35&5%

SASH WEIGHTS.
Per ton, f.o.b. Chicago.....$30.00

SAWS.
Back.
Disston's.....35&7½%
Jackson's .....35&7½%
Butchers'—Disston's .....35&7½%
Circular.
Disston's.....50%
Hiles' 50%
Compass.
Common .....per doz. $1 35@1 60
Disston's .....25&7½%
Cross-Cut.
Atkin's.....40%
Disston's.....40&10% &50%
Pocahontas Bit.....per ft. 39c
Pocahontas, Blued ..... " 41c
Dehorning.
Atkins' .....per doz. $5 50
Disston's ..... " 5 75
Hack.
Disston's .....35& ½%
Keystone 33⅓%

SAWS—CONTINUED.

Hand and Rip.
Brown's ..... 30&7½%
Disston's No. 7 ..... 30&7½%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 ..... 25&7½%
Gorham's Comb ..... 30&7½%
Keystone ..... 30&7½%
Sam Sickles', hand ... per doz. $4 25
"I Will," hand ..... " 5 75
"I Will," rip ..... " 6 75
"U. S. A." hand ..... " 12 25
"U. S. A." rip ..... " 14 25
Keyhole—Disston's ..... 25&7½%
One Man 50%

Panel.
Brown's ..... 30&7½%
Disston's No. 7 ..... 30&7½%
Disston's Nos. D8 and 12, D100 and 112 ..... 25&7½%
"I Will" 40%
"U. S. A." ..... 40&10&5%

Pruning.
Avery's Duplex ..... 25&7½%
Brown's ..... 25&7½%
Disston's ..... 25&7½%

Wood.
Common ..... per doz. $4 50
Handy ..... " 7 50
Happy Medium ..... " 7 00
Wood Sawyers' Delight " 8 25

SAW SETS.

Common Lever ..... per doz. $ 1.20
Stillman's Lever ..... per doz. 1.30
Leach's ..... per doz. 5.00
Nash's ..... per doz. 4.20
Monarch ..... per doz. 6.50
Aikin's Pattern ..... per doz. 3.50

FRAMES—SAW.

Common, plain ..... per doz. $1 20
" painted ..... " 1 60

SCALES.

Counter.
Fairbank's Standard 40%
Hatch's ..... per doz. $21 50
Little Detective, 1 2 6
Each $1 65 1 85 1 80
No. 1 Tea ..... per doz. 7 75
Union Platform ..... each 2 35
Pelouze 25%
Turnbull's Market 50%

Platform.
Common, 600 800 1000
Each $8 75 9 75 10 75
Chicago Standard ..... 33⅓% & 40%
Fairbank's Standard 40%

SCOOPS.

Ames ..... 10&10%
Eastern Pattern. Socket Strap.
Nos. 2 3 4 5 6
Per doz. $7.00 7.25 7.50 7.75 8.00
Nos. 7 8 9 10 12
Per doz. $8.25 8.50 8.75 9.00 9.50
Western Pattern. Socket Strap.
Nos. 1 2 3 4 5
Per doz. $7.00 7.25 7.50 7.75 8.00
Ajax. *Eastern Pattern,*
Nos. 2 3 4 5
Per doz. $5.25 5.50 5.75 6.00
Nos. 6 7 8 9
Per doz. $6.25 6.50 6.75 7.00
Ajax. *Eastern Pattern,* extra heavy.
Nos. 3 5 6 7
Per doz. $7.25 7.75 8.00 8.25
Ajax. *Western Pattern,*
Nos. 4 5 6 7
Per doz. $5.75 6.00 6.25 6.50
Nos. 8 9 10 12
Per doz. $6.75 7.00 7.25 7.75

SCRAPERS.

Box.
Stanley's Adjustable, per doz. $3 60
Triangular ..... " 2 10

Cabinet.
Ajax ..... per doz. $2 25
Cast Steel ..... " 65c@75c
Stanley's No. 80 ..... " $7 75

Road.
Cubic ft. 7 5 3
Without runners, ea. $5.00 4.75 4.50
With runners ..... " 5.25 5.00 4.75

SCREWS.

Bench.
Iron 30%
Wood, white maple .. per doz. $3 60

Hand--Wood 20%
Hand Rail ..... 70&10%
Jack ..... 75&5%
Lag or Coach, Gimlet Point .. 70&10%
Saw—Centennial.
Nos. 1 2 3 4
Per doz. 22c 25c 32c 36c

Wood.
F. H. Bright Steel ..... 87½&10%
R. H. Blued Steel ..... 85&5%
F. H Jap'd Steel ..... 82½&5%
F. H. Brass ..... 85&5%
R. H. Brass ..... 80&5%
R. H. Nickel Plated 75%

SCYTHES.

Clipper, grain ..... per doz. $9 25
Dutchman, grass ..... " 6 00
Golden Clipper, grass ..... " 5 50
U. S. A., grass ..... " 7.00

SETS.

Nail.
Round, common ..... per doz. $0 33
Square " ..... " " 42
Octagon " ..... " " 33
Square, Buck Bros. .. " " 1 25
Cup Point, knurled, pr doz. 70c@90c

Rivet.
Farmers' ..... per doz. $1 45
Tinners' ..... 50&10%

Saw.
Aiken's Pattern ..... per doz. $3 50
Common Lever ..... " 1 20
Disston's Monarch ..... " 6 50
" X Cut ..... " 11 75
German ..... " 1 35
Morrill's Old Style ..... " 5 00
" Pattern ..... " 4 50
Leach's ..... " 4 80
Nash's Hand ..... " 4 00
" X Cut ..... " 5 50
Stillman's Lever ..... " 1 30
" X Cut ..... " 2 50

SHARPENERS--SKATE.

Diamond ..... per doz. $1 60

SHAVES--SPOKE.

Iron ..... per doz. $1 35@$2 75
Wood ..... " 2 75@ 4 75
Bailey's ..... 50&5%
Goodell's 15%
Stanley's Universal ..... 30&5%

SHEARS.

Pruning.
Buckeye, No. 1 ..... per doz. $6 50
" No. 2 ..... " 8 50
California Pat., 9 in. .. " 4 25
" 10 in. .. " 5 00
Draw Cut, No. 3 ..... " 15 50
" No. 4 ..... " 18 50
Henry's Pat. 0 01 14 012
Per doz. $1.90 $2.50 $3.15 $3.50
Star ..... per doz. $4 75

Sheep--No. BBA.
6 in. 6½ in. 7 in.
Reg. Grip .. $11.00 $11.35 $12.00 doz.
Nar. Grip .. 11.20 11.00 12.15

Tinners'--See Snips.

SHEAVES--SLIDING DOOR.
In. 3 4 5
Common .. Per set .. $0.42 $0.48 $0.70
Hatfield's " .. .75 1.00 1.60

SHELLERS--CORN.

Union ..... per doz. $7 25

SHOT--See Ammunition.

SHOVELS AND SPADES.

Railroad, Etc.
Gold Hibbard's ..... per doz. $9 25
C. H. Conovers's ..... " 7 75
Beckwith's ..... " 7 75
Hickory ..... " 6 25
Greenleaf's ..... " 5 75
Columbus ..... " 5 00
Ames' new list ..... Discount 12½%

Coal.
No. 2 Ajax ..... per doz. $5 25
No. 4 Golds ..... " 6 25
Ames' new list ..... Discount 12½%

SIEVES.

Champion ..... per doz. $1.00
Hunter's Genuine ..... " 1.20
" Imitation ..... " 1.00
Tin Rim, 16 mesh plain wire " 1.35
Wood " 16 mesh plain wire " 1.00

SINKS.

Cast Iron.
Painted 50%
Enameled, White ..... 60&10%

Wrought Steel.
Painted, new list ..... 40-10&5%

SLEDGES--See Hammers.

SNAPS—HARNESS.

Champion 65%
German Pattern ..... 30&5%
Judd's Pattern ..... 60&10%@70%

SNATHS.

Double Ring, Bush ..... per doz. $6 50
Patent Loop " ..... " 7 00
" " Brass ..... " 6 25

SNIPS--TINNERS'.

Hernisch's ..... 40&5%
National ..... 40&5%
P. S. & W. Co.'s ..... 25&5%

SOLDER.
See Metals, Column 1

SPRINGS--DOOR.

Perfect. Nos. 1 2 3 4
Per doz. 32c 38c 45c 48c
Reliance, Light $1.40, Heavy $2.20 doz.
Star ..... " .90, " 1.30 "
Torrey's ..... per doz. $1 35
Warner's— No. 1 No. 2
Per doz. 72c $1 45

SQUARES

Steel and Iron 70%
(Add for Bluing, $2.50 per doz., net.)
Mitre--Stanley's No. 12 ..... 40%
Try.
Stanley's No. 20, new list ... 30&10%
" Nos. 12 and 14 ..... 40%
Try and Bevel--Stanley's ..... 40&5%
Try and Miter.
Fox's ..... per doz. $7 25
Winterbottom's 50%

SQUEEZERS--LEMON.

Common Wood ..... per doz. $0 72
Porcelain Lined, wood ..... " 1 30
Boss, tinned iron ..... " 84
Pearl, nickel plated ..... " 1 30
Star " " ..... " 1 60
Little Giant, tin'd iron ..... " 4 25
King ..... " 2 50
Drum ..... " 4 50

STAPLES.

Blind—Barbed ..... per lb. 9½@10c
Butter Tub ..... " 8@8½c
Fence, less than carload.
Polished ..... per 100 lb. $2 40
Galvanized ..... " 2 80
Netting—Galvanized ..... per keg 3 60
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples ..... 85-10&5%
Extra heavy ..... 75&10%

STEELYARDS.
Discount 25%

STONES.

Axe.
Hindostan ..... per lb. 5½@7c
More Grit ..... " 9½c
Washita ..... " 16½c
Emery ..... 60%@60&5%
Oil—Unmounted.
Arkansas Hard ..... per lb. $2 00
Arkansas Soft ..... " 1 15
Hindostan ..... " 6½@6¾
Lily White ..... per lb 43c
Queer Creek ..... " 14½c
Ouachita ..... " 36c
Washita ..... " 25c

Sythe.
Black Diamond ..... per gro. $7 75
Clear Grit ..... " 4 25
Gem Corundum ..... " 7 50
Green Mountain ..... " 4 25
La Moille ..... " 7 00
Pikes Gen. No. 1, Ind. Pond., per gro 4 75
White Mountain ..... per gro. 6 50
Willoughby Lake ..... " 6 25
Red End ..... " 3 15

STOPS—BENCH.

Hotchkiss' ..... per doz. $3 60

STOPPERS—FLUE.

Common ..... per doz. 42c
Crown ..... " 48c
Gem, flat, painted ..... " 72c
Gem, cor'd, decorated ..... " 68c
Kirch's ..... " $1 20
Peerless ..... " 72c
Skinner's Common Sense " 95c

STRAPS.

Scoop ..... per doz. prs. $1 80
Skate ..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's ..... per doz. $3 90
Excelsior ..... " 5 50
Malleable Iron ..... " 70
Perfection ..... " 6 00
King ..... " 4 50

Wire.
N. S. Elwood's ..... per doz. $5 75
O. S. Elwood's ..... " 5 75
Little Giant ..... " 5 50
Star Lever ..... " 6 25
Star Tackle Block ..... " 9 25
Warner's ..... " 6 25

SWIVELS.

Malleable Iron ..... per lb. 6½c
Wrought Steel ..... per gro. $4 50

TACKS.

American Cut ..... 90&5%
American Wire ..... 85&25&10%
Bill Posters Cut ..... 90&40%
Blued Carpet ..... 90&15%
Tinned Carpet ..... 90&15%
Gimp ..... 90&30&10%
Upholsters' Cut ..... 90&40&5%
Upholsters' Wire ..... 90&25%
Double Pointed ..... 90&20%
Copper ..... per lb. 27c
Canvas Nails ..... 75&5%
Clout Nails ..... 75&10&5%
Hungarian Nails ..... 80&5%

TAPES--MEASURING.

Asses' Skin ..... 40&10%
Bend Leather 25%
Patent Leather 25%
Lufkin's Steel 30%
Lufkins Metallic 30%

TENTS AND PAULINS.

Wall Tents ..... 50&20&10%
Wedge Tents ..... 50&10&5
Paulins ..... 50&10&5%
Wagon Covers ..... 50&10&5%

THERMOMETERS.

Tin Case ..... per doz., 95c@$1 25
Wood Back ..... " $1 75@ 9 00
Glass ..... " 15 50

TIES.

Bale.
Single Loop ..... 80&10&5%
All other kinds 70%

Cow--See "Chains."

TONGS.

Crimping—Packham's ... per pair 50c
Gutter—P. S. & W. Co.'s ..... 15&10%
Pipe—Brown's 50%
Roofing—P. S. & W. Co.'s .... 15&10%

TOOLS—SAW.

Atkin's Dexter ..... per doz. $4 25
Atkin's Excelsior ..... " 6 25
Disston's Universal 40%
McDonald's 33⅓%
Simond's Crescent ..... per doz. $10.00

TRAPS.

Game.
Hawley & Norton 70%
Newhouse 50%
New Victor 80%

Mole—Reddicks ..... per doz. $5 75

Mouse and Rat.
Wood Choker ..... per hole 10c
Tin Choker ..... " 11c
Delusion ..... per doz. 85c
Imitation Sight, Rat .. " 80c
Marty Rat ..... " $6 75
Marty Rat, Imitation .. " 3 75
Marty Mouse ..... " 3 15
Marty Mouse, Imitation " 2 10
E-Z-Ketch, Mouse ..... " 42c
E-Z-Ketch, Rat ..... " 90c
French Automatic ..... each $3 60

Fly.
Balloon ..... per doz. $1 25
Harper's ..... " 1 35

TROUGH--EAVE.

Eastern ..... Discount 75&16⅔%
Central ..... " 75&12½%
South Western ..... " 75%
Missouri River ..... " 75&12½%
Southern ..... " 75&12½%

TROWELS.

Brick.
Standard 30%
Brade's ..... 10&7½%
Disston's 30%
Rose's 25%

Plasterers'.
Standard 33⅓%
Disston's 30%
W. & McP 25%

TRUCKS.

Bags ..... each $1 70
Handy ..... " 1 50
Warehouse ..... 60&5%
No. 1 2 3
Half Ironed $2.60 $3.40 $5.00
Full Ironed 3.90 5.75 6.75

TUBS-WASH. Ex.
No. 3 2 1 large
Standard, per doz. $5.25 6.25 7.25 9.75
Dowel ..... " 5.60 6.60 7.50 10.00
Cedar ..... " 6.50 7.50 8.25
Indurated ..... " 7.20 7.95 9.45 11.70
Galvanized.
No. 1 2 3
Per doz $5.75 6.25 7.00

VISES.

Bonney's 30%
Cheney's 20%
Parker's Oval Slide ..... 50@50&10%
Parker's Parallel ..... 15@20%
Parker's Victor 10%
Parker's Combination ..... 50&10%
Solid Box ..... 50&5%
Adam's Mechanics' ..... each $2 50

WARE,

Cast-Iron Hollow.
Ground ..... 40, 10&2½%
Unground ..... 50, 10&2½%
Extra Finished 40%
White Enameled ..... 40&5%
Maslin Kettles 65%

Enameled.
Adamant, one coat, 70&10% @75&10%
The manufacturers divide this ware into two classes, which take different discounts, noted above.
Chrysolite, three coat ..... 40&5%

WASHERS.

Leather. In. ⅝ 1 1⅛ 1¼ 1⅜
Nut, per C 16c 17c 19c 25c 23c
Collar, per C ... 35c 40c 40c 43c

Wrought Iron.
In. ¼ 5-16 ⅜ ½ ⅝ ¾ to 1
Per lb ... 9c 8c 6¾c 5¼c 5c 4¾c

Wrought Steel.
In. ¼ 5-16 ⅜ ½ ⅝ ¾ to 1
Per lb .10c 9c 7⅞c 6¼c 6c 5¾c

WEDGES.

Ax ..... per doz. ... 30c
Galling ..... per lb .. 10¾c
Saw ..... " .. 8¾c

Wood Choppers.
Lake Superior and Oregon, Pat ..... per lb .. 9¾c
Reg. Pattern, Steel ... " .. 4 c
Truckee " " ... " .. 4¼c

WEIGHTS.

Hitching ..... per lb 2⅜c
Sash--F.O.B. Chicago .. pr ton .. $28.00

WHEEL BARROWS.

Common Railroad ..... per doz. .. $13 00
Heavy " ..... " .. 19 50
Railroad, ball bearing " .. 19 00
Santiago Steel Tray .. " .. 26 50
No. 04 Steel Dirt ... " .. 52 00
No. 04½ " " ... " .. 56 00

WHEELS.

Corundum ..... 70&10&5
Emery ..... 75&5%
Well. In. 8 10 12 14
Per doz. ... $1.90 $2.20 $3.00 $5.50

WIRE.
Barbed. Painted. Galv'd.
Carloads ... pr 100 lbs .. $2.50 $2.80
Less than car " .. 2.60 2.90

Brass.
In coils 20%
In 1 lb. spools, new list ..... 50&10%

Broom--Tinned ..... 60&10&10&10%

Cable—Same price as Barbed Wire.

Copper.
In coils ..... 20&10% 33⅓%
In 1 lb. spools, new list ..... 50&10%

Fence--Smooth.
Nos. 6 to 9, Annealed, pr 100 lbs. $2.10
Nos. 6 to 9, Galv'd ... " 2.20

Hair--New list ..... 50&10%

Market.
Bright, full bdles ..... 70&10%
Bright, broken bdles 70%
Coppered, full bdles 70%
Coppered, broken bdles ..... 65&10%
Tinned, full bdles ..... 70&5%
Tinned, broken bdles ..... 65&10%

Picture.
In coils ..... 80% @80&10%
In 5 lb. spools ..... per lb .. 26c

Plain—Small lots $2.00
Car lots 1.95
Small spools 5c per hundred higher

WRENCHES.

Acme Standard 60%
Alligator ..... 65&5%
Always Ready ..... 40&10&5%
Bemis & Call 40%
Coe's Standard ..... 40&10%
Girard's Agricultural 75%
P. S. & W. Co.'s Agricultural 75%
" " " Knife H'dle .. 50&5%
Wescott's "S" 33⅓%
Malleable ..... per lb .. 6¼c
Stillson Pipe ..... 60&5%
Trimo " 60%

WRINGERS.

Clothes.
Nos. 22&110, Guarantee, pr doz. $28 00
No. 150, Sunshine ..... " 18 00
No. 130, Mendota ..... " 18 00
No. 12, Success ..... " 16 00
Blue Bell, Ball Bear'g. " 25 00
No. D 110, Domestic ... " 22 50
No. E 300, Empress ... " 25 50
No. 122, Bicycle Ball-bearing ..... " 27 50
No. 122, Swan ..... " 27 50

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS HUBERT E. PECK, 623 F St., N. W., Washington, D. C. Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—My hardware, stoves, tinware and tin shop and pump work and cornice work; up-to-date stock; invoices about $6,000 to $7,000; a good paying business in a fine location down town; a fine city in eastern part of Minnesota of 22,000 population; good reason for selling. Address "Good City," care The American Artisan, 69 Dearborn st., Chicago, Ill. 18

For Sale—$6,000 stock of hardware, stoves and paint with a tin and plumbing shop in connection; this stock is located in northeastern part of Iowa in a good farming country. Address "Paint," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 18

For Sale—A good clean stock of hardware and tin shop; only one other stock in town; 2,500 inhabitants. O'Dea Hardware Co., Valley Junction, Iowa. 17

For Sale—$10,000 stock of hardware, stoves, tinware and paints with a tin and plumbing shop in connection; this stock is in the copper country of Michigan and offers a rare opportunity for some hustler to get a profitable business; the reason I want to sell is that I am going to the Pacific Coast; correspondence solicited. Oscar Keckonen, Calumet, Mich. 16

Wanted—Stock of hardware or lumber for 160-acre farm adjoining county seat town; write for particulars. Address "Farm," care The American Artisan, 69 Dearborn st., Chicago. 16

If you want to buy a hardware, buggy, harness and implement business doing over forty thousand annual business, stock about twelve thousand, and mean business, write "Farmer," care The American Artisan, 69 Dearborn st., Chicago, Ill. Located in garden spot of Indiana. 16

For Sale or Exchange—For stock of hardware that can be moved, modern residence and vacant lot. Edmund Neville Hardware Co., Dixon, Ill. 16

For Sale—A good paying cornice shop, or would take a partner; only a small amount cash necessary to a good, capable and reliable man, who can take charge of shop, get out his own patterns and handle a few men and the business to the best advantage; an up to date live town, 15,000 population. Address Cornice Works, Box 1135, Waterloo, Iowa. 16

For sale—Good tinning business; do slating, roofing and gas fitting, galvanized and furnace work. Reason for selling, death of proprietor. Will sell for whatever stock and tools invoice. Invoices from $1,500 to $1,800. Address Mrs. D. A. Williams, Jefferson, Ohio. 16

TINNERS' TOOLS.

For Sale—A "Sherman" tandem in perfect condition; cheap. T. E. Copelin, 32 No. State st., Chicago, Ill. 16

Wanted—Pipe cutting and threading machine in perfect condition for hand or power use. State size, condition, make, etc. Address Peter Haas, El Paso, Ill. 18

For Sale—Full set tinners' tools, also stock on hand. W. H. Werbe, Kokomo, Ind. 18

For Sale—Set tinners' tools, including Robinson's 8 ft. cornice brake. Herman Krebs, 62 E. Chicago Ave., Chicago, Ill. 18

Wanted—Three-inch foot brake. Address 309 Ave. "E," Cedar Rapids, Ia. 18

For Sale—Set of tinner's tools; write for list and price. Chas. Rodeman, Garrett, Ind. 17

For Sale—Complete line of tinners' tools; also slaters' tools; good condition. Address "H. W.," Klondyke Incubator Co., Des Moines, Iowa. 17

Wanted—Second-hand tinner's tools and machinery; must be in good condition. Write us at once with list of what you have for sale. Address L. D. McQuiston & Co., Monticello, Ark. 16

For Sale—One good set tinner's tools. 20 pieces. Write for prices. C. E. Batties, Cass Lake, Minn. 16

HELP WANTED.

WANTED—Good all-around tinner, handy at iron pipe work and jobbing. Write or call at once. Address Grebe Hardware & Harness Mfg. Co., Barrington, Ill. 18

WANTED—Good tinner; one who has had some experience at furnace work preferred; steady work by the year; good wages. W. E. Bennett, Fond du Lac, Wis. 18

WANTED—At once a good plumber and tinner. State wages and how long at trade. Address A. W. KUHN, 920 Milwaukee ave., So. Milwaukee, Wis. 18

WANTED—A first-class tinner and experienced furnace man; married man and German preferred. To the right party steady employment and good wages. Address Box 1441, Le Mars, Iowa. 18

FIRST-CLASS TINNER can make himself useful around hardware store, an all-round man can have steady job. Cain & Ross, Valparaiso, Ind. 18

WANTED—First-class tinner, who can do furnace and pump work; good pay and steady job. Address Lock Box 34, South Wayne, Wis. 18

Wanted for Montana—A tinner who can do cornice work. State age and full particulars. Wages $3.50 for 9 hours. Address Montana, Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 18

Wanted—At once. Two good tinners who are familiar with furnace work. Married men preferred. Must be steady and sober. To right man will give steady work year around. State wages. Martin & Kuebler, Viroqua, Wis. 18

Wanted—A tinner who can and is willing to clerk in store, who is a general all round mechanic, such as is needed in country hardware store; good wages and steady job to right man. Address, with references, and state wages wanted, I. B. Wensink, Plymouth, Wis. 18

Wanted—A good tinner, furnace and roofing; steady job and charge of shop to right man. Holder-Athey Hdw. Co., Bloomington, Ill. 18

Wanted—At once, tinner and plumber with about two or three years' experience: German preferred, with some experience back of counter; state wages wanted by year, month or week; steady work for right man. Address Julius Schroeder, Glidden, Wis. 18

Wanted—Good tinner and hardware man; can give right man good place. Holmes & Howe, Mt. Vernon, S. Dak. 17

Wanted—Tinner; competent to run tin shop and do plumbing and furnace work; state wages and address. C. J. Johnson, Dell Rapids, So. Dak. 17

Wanted—Good all-around tinner; must be sober and reliable; state wages and give references; steady work all year. H. Wehmhoefer, Beecher, Ill. 17

Wanted—Experienced, hustling young store salesman for city and country. Address "Hustler," care The American Artisan, 69 Dearborn st., Chicago, Ill. 17

Wanted—A first-class tinner; steady employment and liberal wages given; a rare chance for good man. Address Martin Engelhart, 473 Lincoln ave., Chicago. 17

Wanted—A tinner's helper; an exceptional chance for a tinner's helper; good wages and steady employment. Address Martin Engelhart, 473 Lincoln ave., Chicago. 17

Wanted—Good tinner; German preferred; one that has some knowledge of plumbing and furnace work; steady job year around. H. A. Brouillet, Lansing, Iowa. 17

Wanted—Good tinner by the Home Pride Malleable Steel Range Co. of Marion, Ind. A man between the ages of 21 and 35 preferred. Give references. Address Home Pride Range Co., Marion, Ind. 17

Wanted—A reliable, sober and industrious man who is acquainted with the hardware, implement and pump business; please state experience, wages wanted; give references. Address R. R. Craig, Wellman, Iowa. 17

Wanted—To correspond with a good, steady, practical tinner who is desirous of a change with a view to employment; must be A1; a rare snap. Address "A No. 1," care The American Artisan, 69 Dearborn st., Chicago, Ill. 17

Wanted—Tinner for shop in country town; must be sober and willing to help on implements when needed; good steady job to the right kind of a man. Address "Shop," care The American Artisan, 69 Dearborn st., Chicago, Ill. 17

Wanted—Tinner for inside and outside work; steady job the year around to right man. John Felt, Bluffton, O. 16

Wanted—Good all-round tinner to do furnace work, spouting and general shop work; state wages when answering. Address Weiss & Frerest Bros., Nappanee, Ind. 16

Wanted—Experienced stove salesman; complete line of steel ranges, stoves, etc. Liberal commission; exclusive territory. The Baldwin Stove Co., Cleveland, Ohio. 16

Wanted—A tinner or solicitor with $1,000 to buy an interest in a good jobbing shop incorporated for $5,000, in Colorado. If you have the money and mean business answer. Address "Interest," care The American Artisan, 69 Dearborn st., Chicago, Ill. 16

Wanted—Good tinner; German preferred, who knows something about furnace or pump work; inside and outside work; steady job the year round; state wages expected. Address Julius Fiehrman, Central P. O., St. Louis Co., Mo. 16

Help Wanted—At once, good all-around tinner; wages according to ability; steady position. N. Upham, Grafton, N. D. 16

Wanted—Experienced high-grade stove salesman for Iowa. Address "Illinois," care The American Artisan, 69 Dearborn st., Chicago, Ill. 16

SITUATIONS WANTED.

Situation Wanted—By tinner, 29 years old; sober and reliable; 8 years' experience, including plumbing, gas fitting, hot air and hot water heating; Iowa or Wisconsin preferred. Address "R. W.," care The American Artisan, 69 Dearborn st., Chicago, Ill. 17

Situation Wanted—By tinner, 28 years old; married; strictly sober; speaks English and German; must have steady work; nine years' experience in inside and outside work on plumbing and heating. Address W. J. Schmidt, Sams P. O., Bottineau Co., N. D. 17

Position Wanted—By a first-class tinner and furnace man of twenty-two years' experience; have had several years' experience in cornice shop; can cut and lay out work from plans; none but those wanting a first-class man at good wages need reply; state wages can pay in first letter. Address Fred Stanton, Fargo, N. D. 17

Situation Wanted—By a young man 19 years old, speaks German and English, as tinner; 2 years' experience in furnace and pump work; prefer locating in Wisconsin. Address Box 143, Middletown, Wis. 16

Wanted—Position as traveling salesman in Indiana or Illinois for stoves, hardware or some kindred line; twelve years' retail experience. Address "Ex Retail," care The American Artisan, 69 Dearborn st., Chicago, Ill. 16

Wanted—By a young man, a position as second tinner in a country shop. Address A. S. Butler, Bloomfield, Mo. 16

SPECIAL NOTICES.

FOR SALE OR RENT

A well established hardware and paint business to invoice about $2,500.00, including a general repair tin shop. Reasons for selling poor health. A. H. IMIG, Des Plaines, Ill. 4t-17

FOR SALE. PATENT

For Nested Stove Pipes with machinery and established trade. For particulars address "INVENTOR," care THE AMERICAN ARTISAN, 69 Dearborn Street, Chicago, Ill. 3t-15

FOR SALE Hardware business long established; an exceptional chance; located central N. Y. in fine mfg. city of 40,000 people. Will reduce stock to suit purchaser. Write for particulars. Ad. Hardware Company, care The American Artisan, 69 Dearborn St., Chicago, Ill.

WANTED!

Superintendent for Chicago Steel Range Factory.

Rare chance for young man of energy and character. Address "SHEETS," Care of The American Artisan, 69 Dearborn St., Chicago, Ill. 4t-15

WANTED!

A TINNER

in every county in the United States to manufacture an **Air Pressure Machine Oiler** to supply the trade. Very meritorious and profitable. Address

W. A. REINECKE,
1t-18 **Holzer, Kans.**

WANTED!

30 Inch Double Seamer.

Address,

18 **H. A. GRIFFIN.**

I WOULD LIKE to have a good sheet iron worker in each town in the U. S. manufacture for me a patent article to supply the trade in his town and neighborhood. Device made of Galvanized Iron; can be built in any good sized tin shop; good demand for it; good profit in making it; can be worked into a good business. Address, 10

R. M., P. O. Box 333, Milwaukee, Wis.

AGENCY FOR ST. LOUIS,

—ALSO—

State of Missouri and part of Illinois,

to represent manufacturer of hardware. Address "Agency," care The American Artisan, 69 Dearborn St., Chicago, Ill.

ACETYLENE BURNERS of SUNLIGHT BRAND

are Correct Theoretically,
Rated Accurately,
Tested Carefully,
Shipped Promptly.

INDUCEMENTS TO HARDWARE TRADE.

Sunlight Lava Mfg. Co.
CHATTANOOGA, TENN.

STEEL SLEDS

There is not a dealer who reads this advertisement who is not interested in the line we carry. A beautifully illustrated catalogue (in colors)—yours for the asking. You should get posted NOW. You will remember you could not get the sleds you ordered last November and December

Norris & Loring Hardware Co.

Exclusively Wholesale **CEDAR RAPIDS, IOWA**

Extract from Medical Report on Spanish War Camps: "Flies were undoubtedly the most active agents in the spread of typhoid fever. Flies alternately visited and fed on the infected fecal matter and the food in the mess tents. More than once it happened when lime had been scattered over the fecal matter in the pits, flies with their feet covered with lime were seen walking over the food."

BIGELOW'S WIRE FLY KILLER

is a rapid seller because it kills but does not crush the fly.
Send for prices and illustrated booklet.

J. F. BIGELOW, Manufacturer
WORCESTER, MASS.

You Buy the Stock
The Warren Shelving
Will Sell It

J. D. WARREN MFG. CO., CHICAGO

E. R. Gardner, Monticello, Ia., writes:

"We take your paper and think it the best magazine ever published of its kind."

FOR those small repairs which every dealer has to make upon stoves nothing better has ever been found than Dixon's Stove Cement. It makes a strong, firm, durable repair. Ask for booklet 18-L.

JOSEPH DIXON CRUCIBLE COMPANY, JERSEY CITY, N. J.

HOW ARE YOU FIXED?

IF YOU ARE NOT ALTOGETHER BOUGHT UP ON

Black and Galvanized Sheets, Steel Roofing and Siding of all Kinds or Gauges,
Tin and Terne Plates, Solder, Metallic Shingles,
Fire Proof Shutters, Skylights, Cornices, Ventilators,

BERGER'S "Classik" METAL CEILINGS,

Eave Troughs, Conductor Pipes, Hangers, Cut Offs, Mitres,
Paints, Nested Stove Pipe, Continuous Roll Roofing,
Felt and Lining Papers, Awnings, Tublar Lanterns,
Lamp Torches, Oil Cans, Spray and Well Pumps.

SEND US YOUR ORDERS. WE CAN SAVE YOU MONEY.

The Berger Manufacturing Company,

Largest Manufacturers of Sheet Metal Work in the World,

CANTON, OHIO.

New York Office, 210 E. 23rd St. | Boston Office, 176 Federal St. | Philadelphia, Pa., 1218 Filbert St. | St. Louis, Mo., 623 N. Main St.

EVIDENCE OF SUPERIORITY

The John Scott Legacy Premium and Medal

ISSUED BY THE

FRANKLIN INSTITUTE

HAS BEEN AWARDED TO THE

"STAR" VENTILATOR

A Valuable and Unique Prize for Superior Merit

PHILADELPHIA—NEW YORK *MERCHANT & CO., NC., Sole Manufacturers.* CHICAGO—BROOKLYN

CROWN VENTILATOR CO. MILWAUKEE

CROWN VENTILATORS

DIFFERENT FROM ALL OTHERS

NONE BETTER FOR GENERAL VENTILATING WORK

ALSO

Crown Chimney Jacks

The CHEAPEST EFFECTIVE SMOKEY CHIMNEY CURE MADE.

Write for particulars and how we furnish these caps, to

CROWN VENTILATOR CO., MILWAUKEE, WIS.

JOS. P. BELL, Baraboo, Wis., Writes: "Please take my ad. out of your paper. If you don't I will have to hire a man to answer the letters I am receiving."

Excellent. Economical. U.S. METAL POLISH G. W. Hoffman, Sole Prop. 285 E. Wash. St. INDIANAPOLIS. IND. TRADE MARK. INFALLIBLE FOR POLISHING GOLD, SILVER, PLATED WARE, NICKEL, TIN, BRASS, COPPER, Etc. DIRECTIONS: Take a little of the Polish on a soft cloth, rub the Metal hard and then wipe it off with a dry cloth. No Experiment. A Recognized Success

REPAIRS FOR ALL STOVES AND FURNACES

Stove Rods, Paste, Stove Putty.
Stove Knobs, Pipe Dampers, Mica, Etc.

Wm. T. Dust Co., Detroit.

REPAIRS FOR ALL STOVES AND RANGES,

A. G. BRAUER, 316-318 NORTH THIRD ST. ST. LOUIS MO.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb. and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

Bridgeport Crucible Co.
BRIDGEPORT, CONN.

UNCLE SAM DAMPER! THE PIONEER STEEL DAMPER

FURNACE PIPE DAMPER.

The handle is enameled wood, will not heat, rigidly clamped and cannot come off. The spring is not affected by heat. The stem is a steel rod, all one piece and nothing to fall apart; pointed and easily driven through the pipe. The Damper Plate is made of cold rolled pickled steel, corrugated to stiffen it and to prevent warping. We call special attention to lightness and strength of these Dampers and their desirability for **FURNACE** pipes.

"The Difference in Weight Pays the Freight."

Ask Your Jobber for the "UNCLE SAM."

SAYRE STAMPING CO., Sole Manufacturers, **SAYRE, PA.**

"Eagle" Brand Copper Rivets and Burrs
STANDARD FOR QUALITY. (Lake Superior Copper)
—MANUFACTURED BY—
THE PLUME & ATWOOD MFG. CO.
29 Murray St., NEW YORK 196 Lake St., CHICAGO, ILL.

DO YOU WANT
STOVES AND HEATERS
that are easily sold and STAY SOLD. We have been very successful in designing patterns for such.

The Gobeille Pattern Co.
CLEVELAND, OHIO.

The GEO. W. COPE STOVE PATTERN WORKS
Cor. Brush & Woodbridge Sts.
DETROIT, MICH.

Weller Stove Pattern Co.
1110-1112-1114 State St.
QUINCY, ILL.

The Milwaukee Pattern Works
Sketches and Designs for
STOVE AND HEATER WORK OF ALL KINDS.
Correspondence Solicited.
505-507 Cedar Street. MILWAUKEE, WIS.

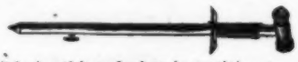
Established 1874.
The largest and most reliable **Foundry Supply House** in the world.
THE
S. Obermayer Co.,
CINCINNATI, OHIO,
CHICAGO, ILL.
manufacturers
"Everything You Need In Your Foundry."
Importers and refiners
PLUMBAGO GRAPHITE.
Catalog Sent on Application.

THE YANKEE (IMPROVED ALL STEEL) DAMPER.

HOT AIR.

THE YANKEE EXCELS.

Above All—Cheapness—a dealer cannot possibly make dampers as cheaply as we sell the Yankee. Easily put in and taken out of pipes. Stiffest, quickest-working and neatest damper on the market.



It is impossible for this rod when in position to move either way.

ROD POINTS: Has wood enameled handle. Wood handle cannot come off. Washer and spring cannot fall off the rod. Same size of holes are punched on each side of pipe. Rod is made of ¼ in. cold-rolled steel and slips into damper very smoothly. **Sample sent to any Dealer without charge.**

SMOKE PIPE.

The S. M. HOWES CO., Manufacturers, 40-46 Union St., Boston, Mass.

ACME OVEN THERMOMETERS

THE BEST IN THE MARKET.

STYLE "C"

2¾-INCH DIAL

GIVE THEM A TRIAL.

MANUFACTURED BY

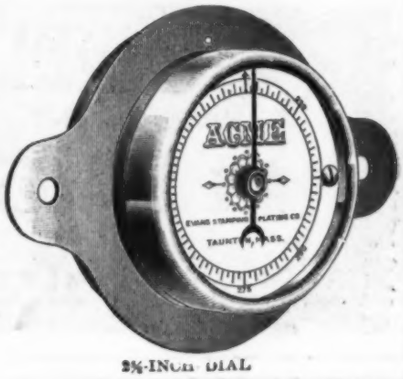
THE

EVANS STAMPING & PLATING CO.

TAUNTON, - MASS.

C. H. MATTHEWS, Detroit, Mich.
(Western Agent.)

STYLE "D"



2¾-INCH DIAL

JUST THE INDICATOR FOR

STEEL RANGE DOORS

No. 460.

SOMETHING NEW
SEND FOR SAMPLE
AND PRICES.

HELIOS-UPTON CO.

PEABODY, MASS.

or HENRY GLEASON, Agent,

258 Broadway, NEW YORK.

New Bulletin No. "13F" now ready.

Your Entire Works

INCLUDING ALL

YARDS AND WAREHOUSES

Made As One by a

TRAVELING ELECTRIC **HOIST**

Material Up to Six Tons
Conveyed Where Needed

PAWLING & HARNISCHFEGER

238 Oregon St. MILWAUKEE

Polishers and Platers Supplies

THE BEST THAT CAN BE MADE

Can only be had direct from the

MAKER OF THE BEST.

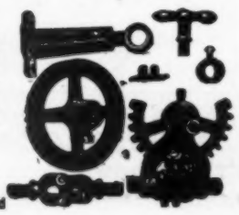
F. B. STEVENS,
DETROIT, MICH.

H. WEISS & CO.

20 Cliff St., New York.

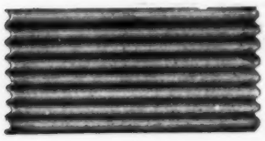
SKYLIGHT GEARING AND CHAIN LIFTS

Tinsmiths' and Plumbers' Tools
Cornice Makers' Tools
Coppersmiths' Tools
Pipe Threading Machines
Second-hand goods bought, sold & exchanged



E. J. Schultz, Kewanee, Ill., writes:

"I can say that my advertisement in The American Artisan convinces me that I cannot afford to be without your paper."



WRITE US FOR CATALOGUE AND LOW PRICES ON **BEST**

STEEL ROOFING, CORRUGATED IRON, ETC.,

We are large manufacturers of these goods and can save you money.

SYKES STEEL ROOFING CO. CHICAGO, ILL. and NILES, OHIO

Edwin B. Simpson & Son
31 Spruce St. N. Y.
PERFORATORS OF SHEET METALS.

J. H. ELLER & CO.
MANUFACTURERS OF
METAL CEILINGS
CORNICE.
SKYLIGHTS, VENTILATORS ETC.
SHEET METAL SPECIALTIES.
1106 E. 5 ST. CANTON, OHIO

PERFORATED METAL
THE ROBT. AITCHISON PERFORATED METAL CO.
303-305 DEARBORN STREET, CHICAGO, ILL.

Metal Worker's Crayon.
THE D. M. STEWARD MFG. CO.

UNIFORM DISCOUNT TO THE TRADE.

D. M. STEWARD MFG. CO.
CHICAGO, CHATTANOOGA. NEW YORK

U. S.
N. TRADE MARK. M.

ROOFING TIN

MADE BY THE **MF** PROCESS.

The **MF PROCESS** of manufacturing roofing tin originated in South Wales two generations ago; from that time to the present the product of the **MF PROCESS** has been the most reliable and hence the **MOST FAVORED.**

Recently the **NEW METHOD** by which terne plates are finished in a manner that gives further protection against corrosion has been combined with the **MF PROCESS.** The result of this combination is the **U. S. EAGLE N. M.**

MF

AMERICAN TIN PLATE CO.

BATTERY PARK BUILDING, NEW YORK, N. Y.

MARQUETTE BUILDING, CHICAGO, ILLS.

"CANTON" CEILINGS

"Canton" Metal Ceilings are entirely satisfactory to both the party having our metal art plate placed in his building, on account of the artistic effects which they produce and to the contractors because they are so easily and quickly applied, allowing larger profits on the work. No trouble with Canton Metal Ceilings *because the construction is right.*

METAL CANTON CEILINGS

Classified Designs.

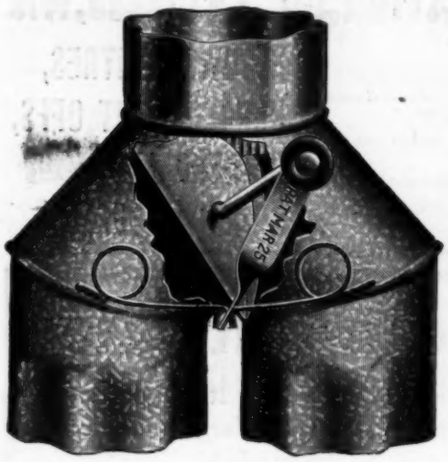
No charge for our art metal book "F." Ask us, we'll send you one

The Canton Steel Roofing Co. CANTON, OHIO

"E. L. Old Style" Roofing Tin

Is a plate of superior quality that has been tried repeatedly and is now used daily, giving universal satisfaction. It carries all of 25 pounds of coating to the box, is stamped and resquared. We have it—no one else. Buy a box and be convinced of its merits.

ILLINOIS ROOFING & SUPPLY COMPANY,
23 LAKE STREET, CHICAGO.



THE PERFECTION RAIN-WATER CUT-OFF

Excels All Others in

Simplicity—Strength—Durability

KLAUER MFG. CO.

Sole Manufacturers

DUBUQUE, - - - IOWA

SUCCESSORS TO

W. A. SMITH & CO., Patentees, LIMA, OHIO

Patented May 28, 1901.

OPEN. CLOSED.

Patent protected by the PATENT TITLE & GUARANTEE CO., N. Y.

Young's Combination Strainer and Cut Off

FOR BOTH CORRUGATED AND PLAIN PIPE

IT has a body made of one piece, therefore cannot break apart; has no lever or springs to break off; has all parts riveted and soldered, too; is practically indestructible. NEATEST SIMPLEST STRONGEST BEST

A STRAINER WITH RAISED OR RIBBED CORRUGATIONS THAT PREVENT CLOGGING.

SEND FOR CIRCULARS.

For Sale by the Following Jobbers:

Blish, Mize & Silliman Co., Atchison, Kans.
A. Treadway & Sons Hdwe Co., Dubuque, Iowa.
Schreiber, Conchar & Westphal Co., Dubuque, Iowa.
Richards & Conover Hdwe Co., Kansas City, Mo.
E. C. Armstrong & Co., Clinton, Iowa.
Wyeth Hdwe. Co., St. Joseph, Mo.
Bonebrake Hdwe. Co., El Reno, O. T.
J. L. Perkins & Co., Chicago, Ill.
Wells & Nellegar Co., Chicago, Ill.
C. T. Schmidt Hdwe. Co., Burlington, Iowa.
Clark, Quien & Morse, Peoria, Ill.
Lincoln Hdwe. Co., Lincoln, Neb.
Brown-Hurley Hdwe. Co., Des Moines, Iowa.
Norris & Loring Hdwe. Co., Cedar Rapids, Iowa.
Cutler Hdwe. Co., Waterloo, Iowa.
Prusia Hdwe. Co., Fort Dodge, Iowa.
A. J. Harwi Hdwe. Co., Atchison, Kan.
Van Camp Hdwe. & Iron Co., Indianapolis, Ind.
Townley Stove Co., Terre Haute, Ind.
Knapp & Spencer Co., Sioux City, Iowa.
Hackett, Walther, Gates Co., St. Paul, Minn.
Nelson, Bouquet, Holliday Co., Minneapolis, Minn.
Lee-Glass-Andreesen Co., Omaha, Neb.
Wright & Wilhelmy Co., Omaha, Neb.
Biddle Purchasing Co., Pittsburg, Pa.
Fletcher Hdwe. Co., Detroit, Mich.
Stollberg & Clapp Co., Toledo, Ohio.
Wm. Frankfurth Hdwe. Co., Milwaukee, Wis.
Morehouse & Wells Co., Decatur, Ill.
Morley Bros., Saginaw, Mich.
V. Tausche Hdwe. Co., La Crosse, Wis.

THE YOUNG MANUFACTURING CO., Mfrs., BELLEVUE, IOWA

REMEMBER WE SELL

Galvanized and Corrugated Sheets
Iron and Steel Sheets and Plates
Roofing and Siding, all kinds
Tin Plates and Terne Plates
Conductor Pipe and Eave Trough
Steel Ceilings, Solder, etc.
Bar, Band and Angle Iron
Planished, Polished and Refined Iron
Deep Stamping and High Grade Sheets
GALVANIZERS

Established 1877 Long Distance Phone Main 4864 and 4865 W. U. Code

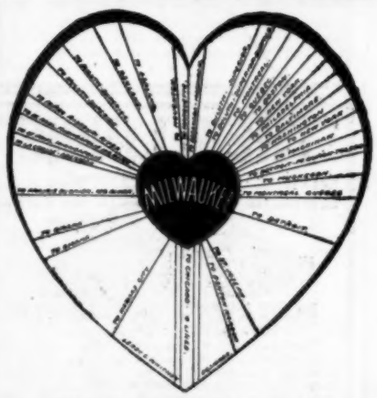
JOHN McVOY & CO.

Iron Merchants and Metal Supplies

OFFICE: 21 to 25 Michigan Street
Corner Orleans

WAREHOUSES: 21 to 25 Michigan St. / 15th and Center Ave.

CHICAGO



The Great Shipping Center.

MILWAUKEE CORRUGATING CO.

MILWAUKEE, WIS.

Manufacturers of

ROOFING		CORNICES		CEILINGS
	Eave Trough		Steel Roofing	
	Cond. Pipe		(all kinds)	
	(Rd. and Sq.)		Corrugated Iron	
	Elbows		Curved Iron	
	Hangers		Crimped Iron	
	Cor. Cut-Offs		Brick Siding	
	Pat. 11-14-99		Rock Face	
	Cond. Hooks		Beaded Iron	
	Trimmings		Metal Shingles	

TIN PLATE—GALVANIZED IRON—SOLDER

WE ARE THE ONLY AUTHORIZED MANUFACTURERS OF CORRUGATED CUT-OFFS—(BEWARE OF INFRINGEMENT.)

LA CROSSE STEEL ROOFING AND CORRUGATING CO., La Crosse, Wis

MANUFACTURERS OF

EAVES TROUGH, CONDUCTOR PIPE

Our make of goods the very best.

Send us your spring order.

Prices the very lowest

Prompt Shipments.

ELBOWS, MITRES, HANGERS, CUT OFFS, ROOFING AND SIDING MATERIAL.

The American Ventilator

is simple, handsome, durable and effective. It is guaranteed to exhaust more cubic feet per hour than a large majority of the storm proof ventilators now on the market.

IT GIVES RELIEF

from the unhealthy condition of close and overheated rooms. It keeps the atmosphere in a residence, cool and refreshing during the hot summer months.

American Steel Roofing Co., MIDDLETOWN, OHIO.

FRIEDLEY & VOSHARDT

194-202 MATHER STREET, CHICAGO

Send for Catalogue A 21

MANUFACTURERS OF

Sheet Metal Architectural Ornaments, Art Metal Ceilings, Zinc and Bronze Statuary, Finials, Cresting, Etc.

A FULL LINE OF ROOFING, GALVANIZED IRON, CORRUGATED IRON, SHEET COPPER, CONDUCTOR PIPE, GALVANIZED STEEL TANKS.

GARRY IRON & STEEL ROOFING COMPANY

CORRUGATED ROOFING SIDING & CEILING

CLEVELAND OHIO.

You Buy the Stock

The Warren Shelving

Will Sell It

Write for Prices on

ROOFING SLATE.

THE AULD & CONGER CO.

MFRS. and DEALERS. Cleveland, O.

This is the title of an interesting illustrated booklet. If you are interested in roofing, you want this book. Free of course.

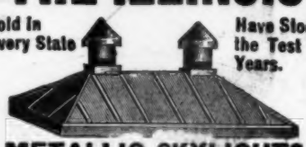
Cortright Metal Roofing Co.

Philadelphia and Chicago.

"THE ILLINOIS"

Sold in Every State

Have Stood the Test of Years.



METALLIC SKYLIGHTS

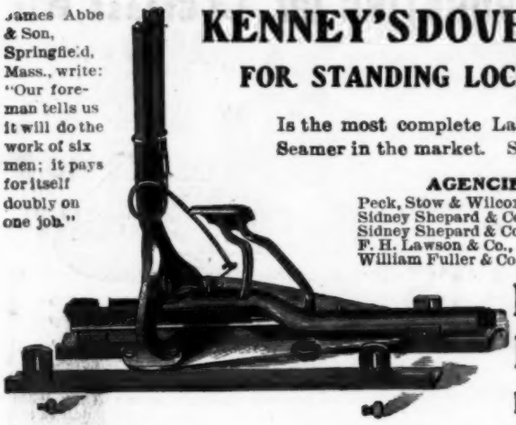
Made in 10 Styles and 500 sizes.

"THE ILLINOIS" are the best skylights made. We also manufacture Cornices, Finials, etc. Send for handsome illustrated catalogue. Ribbed skylight glass furnished at very lowest prices.

J. H. JONES & SON, Mfrs.,

Lock Box 33. STREATOR, ILL.

James Abbe & Son, Springfield, Mass., write: "Our foreman tells us it will do the work of six men; it pays for itself doubly on one job."



KENNEY'S DOUBLE SEAMER

FOR STANDING LOCK TIN ROOFING

Is the most complete Labor-Saving Double Seamer in the market. Send for catalogue.

AGENCIES:

Peck, Stow & Wilcox, - - New York
Sidney Shepard & Co., - - Chicago, Ill.
Sidney Shepard & Co., - - Buffalo, N.Y.
F. H. Lawson & Co., - - Cincinnati, O.
William Fuller & Co., - - Baltimore, Md.

Dwight Slate Machine Co.
HARTFORD, CONN.

ASK YOUR DEALER FOR THE

GEM Soldering Furnace

AND YOU WILL MAKE NO MISTAKE.

Always ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.

THIRTY YEARS EXPERIENCE.

MADE ONLY BY

BURGESS SOLDERING FURNACE CO.
COLUMBUS, OHIO, U. S. A.

BEATS THEM ALL

Made in sizes to form 10 gauge and lighter. Cost only half as much as CAST IRON. It will take cast iron of three times its weight to equal it in strength.

SOLD BY—H. Weiss & Co., 20 Cliff St., New York, N. Y.; Janney Semple, Hill & Co., Minneapolis, Minn.; C. Sidney Shepard & Co., St. Louis, Mo., Kansas City, Mo., etc.; Ill. Roofing & Supply Co., Chicago, Ill.; New Orleans Roofing and Metal Works, New Orleans, La.; Peden Iron & Steel Co., Houston, Texas; D. H. Allison, Denver, Colo.; Holbrook, Merrill & Stetson, San Francisco and Los Angeles, Cal.

The O.K. Steel Brake. Patented March 28, 1901

WILL NOT WARP LIKE WOOD.

DREIS:, ANDREWS & KRUMP, Mfrs., 3214 South Halsted St., CHICAGO

LATEST IMPROVED

GAP SQUARING SHEARS

[Treadle or lever combined] or Belt Power for light or heavy work, all sizes for squaring, trimming and slitting, also cutting triangular or square holes. 8 different styles.

IMPROVED COMBINED

PUNCH AND SHEARS

12 sizes, 10 to 18 in. blades [also arranged for cutting triangular or square holes]. Improved Rolls, Crimpers, Punches, etc.

Bertsch & Co.
CAMBRIDGE CITY, INDIANA.

THE TURNER DOUBLE JET GASOLINE BRAZING TORCH

Unexcelled for Brazing, Tempering, Annealing, Fusing and Soldering. SAVES HALF THE TIME.

Over 1,000° Hotter Than Any Other Torch

No. 4 A—$4.50 Each,
Capacity, One Quart.

The Turner Brass Works,
26 N. Franklin St.,
CHICAGO.

Points Worth Considering When Buying

A FIRE POT

Durability and Cost of Repairs.

$6.00 Net.

If you will carefully inspect the workmanship and material used in making you will find that a No. 1 Fire Pot is durable and can be cheaply and easily repaired. It will please you. **Your money back if it does not.** Jobbers sell at factory price, or we will ship direct upon receipt of $6.00. Our Catalog is free.

Clayton & Lambert Mfg. Co.
DETROIT, MICH., U. S. A

Compartment Sleepers
Standard Open Sleepers
Palace Parlor Cars
Table d'hote Diners
Luxurious Day Coaches

Are some of the many features of a trip over the

Big Four Route

CHICAGO to INDIANAPOLIS and CINCINNATI

Ask for Tickets via the "Big Four."

J. C. TUCKER, G. N. A., 234 Clark St., Chicago.

A WONDERFUL INSTRUCTOR.

I want every hardware dealer to handle The Key to The Steel Square. It is of metal, 4x4 inches. It tells what figures to use on the Steel Square for all of the cuts and bevels for common rafters, jacks, hips and valleys for octagon and square roofs. It gives their lengths from 1 to 24 inch rise per foot run. It tells what figures to use to frame to any degree. Complete with instructions and morocco case. Every carpenter wants it and most all will buy it. Retail price, $1.50. Write for trade price. Albert W. Woods, Arch't, Lincoln, Neb.

TINNERS...

SOMETHING NEW AND GOOD

You can fasten them on conductor before you leave shop.
They hold spout away from building.
The easiest hanger to put on.
Give your jobber a sample order and you will always use them.

Send to the Manufacturers for Free Sample by mail.

E. E. TAFT & CO., MT. PLEASANT, IOWA.

ASBESTOS STOVE MATS

Are the same as everything else we manufacture—

THE BEST

Made of heavy ASBESTOS MILL BOARD, 9 inches, bound with metal band and wire ring. Wrapped one dozen to the package. As we employ no traveling salesmen the selling

Direct to You from the Factory Saves You Money

Write for Catalogue and Prices.

STUBER & KUCK

Manufacturers of Pieced Tinware and Specialties

PEORIA, : : ILLINOIS

O-RIB-O

WARE

BRISCOE MFG. Co.
DETROIT.

Genuine Hunter's Sifters

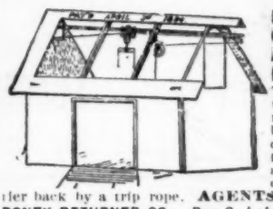
We are the sole manufacturers and there is no other sifter made that has the reputation or is any comparison to the **Genuine Hunter's.**
The only Sifter with a loose cap on the handle, so as to clean out the flour that accumulates in it while the Sifter is in use.

The Best in the World

Combined Mixer, Scoop, Measure, Dredger, Rice Washer, Pumpkin, Tomato, Wine, Starch and Fruit Strainer.

THE FRED J. MEYERS MFG. CO.,

HAMILTON, OHIO



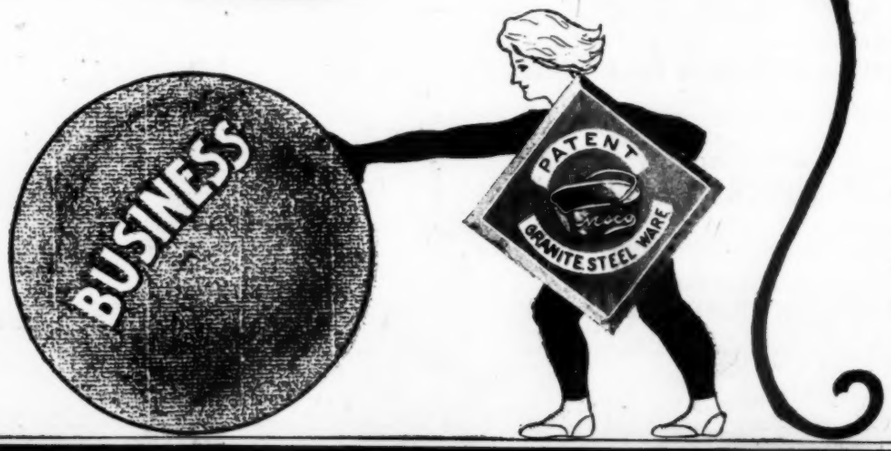
RONEY HAY CARRIER AND FORK RETURNER.

This Returner will return carrier and fork before the team can turn around thereby saving all hard work of pulling carrier back by a trip rope. **AGENTS WANTED.**

RONEY RETURNER CO., Box G, Independence, Ia.

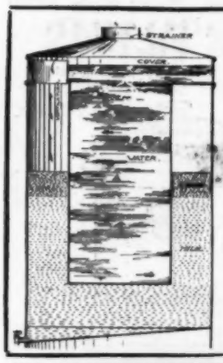
KEEP THE BALL A ROLLING!

Simply order our goods so you can have them for sale. Your customers will do the rest. As quick as they see our trade mark--they see what they want. Nearest office will supply you with catalogues, etc,



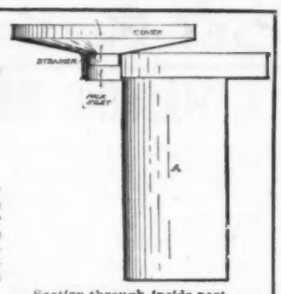
NATIONAL ENAMELING & STAMPING CO.

NEW YORK BALTIMORE CHICAGO ST. LOUIS NEW ORLEANS MILWAUKEE



THE
JERSEY
Cream Separator.

This Separator is practically TWO IN ONE, because it can be used as a Single Separator, (water and milk together), or as a Double Separator, (water and milk separate). All parts are interchangeable and the cover fits both vessels



Section through inside part.

GALESBURG CORNICE WORKS,
141 E. Ferris St., GALESBURG, ILL.

Pat. Aug. 15, 1899.
Pat. Nov. 14, 1900.

Not Just As Good But THE BEST
IS OUR CLAIM FOR
The Star Cream Separator

A trial order will convince you; If not, return goods to us at our expense. Your jobber will supply you; If not, write us for prices and catalogue showing our complete line of
SEPARATOR AND DAIRY SUPPLIES.

LAWRENCE MFG. CO., Toledo, Ohio.

Pat. Applied For.

THE SURPRISE CREAM SEPARATOR

The milk is not mixed with the water
Skimmed milk not diluluted with water is worth money to the farmer.
Write for prices and secure agency.

Every Separator Guaranteed.

Made of best heavy tinplate and is durable

SEITHER & CHERRY CO.,
KEOKUK, IOWA.

PATENT FOOD CARRIERS

Apart Closed Nesting Nested

PAT. JUNE 28, 1888
" MAY 6, 1902

F. G. O. EHLE CO.
BUFFALO, N. Y.

Manufacturers of
EHLE PAT. DINNER PAILS and LUNCH BOXES.

Send for our Catalogue. Prices quoted on application.

Set up in use Folded

THE
Peerless Flue Stopper

Steel wire springs instead of sheet iron stays.
Stays where you put it, and is absolutely soot and smoke proof.
Made either plain or decorated.
Send for miniature sample and prices.

WELLING-BOWERS MFG. CO.
LIMA, OHIO.
Successors to WELLING MFG. CO., Columbus, Ohio.

The BOSS-CREAM SEPARATOR

The most complete device for handling milk winter and summer. No mixing of milk and water. Thousands were sold last year, and many more will be sold this year.
Write at once for descriptive circulars and prices.

Bluffton Cream Separator Co.
BLUFFTON, OHIO.

The SUPERIOR CREAM SEPARATOR.

The Only Separator That Saves Work and All the Cream.

Legs and Strainer With Each One.

For prices and agency write

Superior Mfg. Co., Indianapolis, Indiana.

We Make BRASS
FAUCETS
of Any Size or Style for
Cream Separators, Milk and Oil Cans.

ASK FOR CATALOGUE.

THE CLARK NOVELTY CO.,
ROCHESTER, N. Y.

Hero & Charm Barrel Churns, Union Geared Churns, Anti-Bent Wood Churns, Ash Dash Churns.

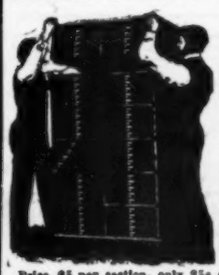
Patent dashers. O I C Quartered Oak Stable Pails, Everlasting Cypress Tree Tubs. Most extensive churn manufacturers on earth.

AMERICAN WOODEN-WARE MFG. CO., TOLEDO, O.

HOMESEEKERS EXCURSIONS
On FIRST and THIRD TUESDAYS in each Month to **VIRGINIA**
Via NORFOLK & WESTERN RAILWAY

For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address
ALLEN HULL, D. P. Agt., Columbus, Ohio

THE LEONARD
Sectional ELECTROTYPE Cabinet



Offers the best system for the care of Electrotypes. Made of Oak in sections each 36 in. wide x 24 in. deep x 16 in. high. Each section contains ten extra strong drawers, size 15x 22½ x 1¾ deep. Each section will hold 700 electros 2x2. Buy one section or as many as you need, add to it at any time. Not sold through the trade; order direct of the factory.

Price, $5 per section, only 25c a drawer, and 25c for its frame; base $1.00, top $1.00.
Send for colored circular and full description of cabinet.

LEONARD MANUFACTURING CO.,
34 Market Street, - Grand Rapids, Mich.

TINNERS...

SOMETHING NEW AND GOOD

You can fasten them on conductor before you leave shop.
They hold spout away from building.
The easiest hanger to put on.
Give your jobber a sample order and you will always use them.

Send to the Manufacturers for Free Sample by mail.

E. E. TAFT & CO., MT. PLEASANT, IOWA.

ASBESTOS STOVE MATS

Are the same as everything else we manufacture—

THE BEST

Made of heavy ASBESTOS MILL BOARD, 9 inches, bound with metal band and wire ring. Wrapped one dozen to the package. As we employ no traveling salesmen the selling

Direct to You from the Factory Saves You Money

Write for Catalogue and Prices.

STUBER & KUCK

Manufacturers of Pieced Tinware and Specialties

PEORIA, : : ILLINOIS

O-RIB-O

WARE

BRISCOE MFG. Co.
DETROIT.

Genuine Hunter's Sifters

We are the sole manufacturers and there is no other sifter made that has the reputation or is any comparison to the **Genuine Hunter's.**

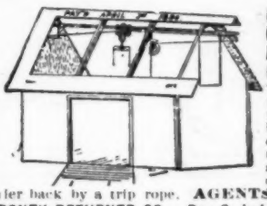
The only Sifter with a loose cap on the handle, so as to clean out the flour that accumulates in it while the Sifter is in use.

The Best in the World

Combined Mixer, Scoop, Measure, Dredger, Rice Washer, Pumpkin, Tomato, Wine, Starch and Fruit Strainer.

THE FRED J. MEYERS MFG. CO.,

HAMILTON, OHIO



RONEY HAY CARRIER AND FORK RETURNER.

This Returner will return carrier and fork before the team can turn around thereby saving all hard work of pulling carrier back by a trip rope. **AGENTS WANTED.**

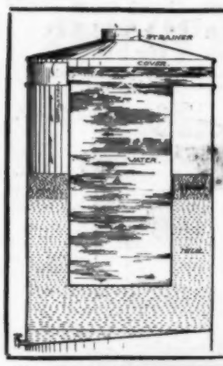
RONEY RETURNER CO., Box G, Independence, Ia.

KEEP THE BALL A ROLLING!

Simply order our goods so you can have them for sale. Your customers will do the rest. As quick as they see our trade mark—they see what they want. Nearest office will supply you with catalogues, etc,

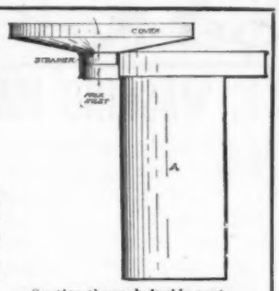
NATIONAL ENAMELING & STAMPING CO.

NEW YORK BALTIMORE CHICAGO ST. LOUIS NEW ORLEANS MILWAUKEE



THE
JERSEY
Cream Separator.

This Separator is practically TWO IN ONE, because it can be used as a Single Separator, (water and milk together), or as a Double Separator, (water and milk separate). All parts are interchangeable and the cover fits both vessels



Section through inside part.

GALESBURG CORNICE WORKS,
141 E. Ferris St., GALESBURG, ILL.

Pat. Aug. 15, 1899.
Pat. Nov. 14, 1900.

Not Just As Good But THE BEST
IS OUR CLAIM FOR
The Star Cream Separator

A trial order will convince you; If not, return goods to us at our expense. Your jobber will supply you; If not, write us for prices and catalogue showing our complete line of
SEPARATOR AND DAIRY SUPPLIES.

LAWRENCE MFG. CO., Toledo, Ohio.

Pat. Applied For.

THE SURPRISE CREAM SEPARATOR

The milk is not mixed with the water
Skimmed milk not diluluted with water is worth money to the farmer.
Write for prices and secure agency.

Every Separator Guaranteed.

Made of best heavy tinplate and is durable

SEITHER & CHERRY CO.,
KEOKUK, IOWA.

Apart Closed Nesting Nested

PATENT FOOD CARRIERS

PAT. JUNE 28, 1888
" MAY 6, 1902

F. G. O. EHLE CO.

Manufacturers of
EHLE PAT. DINNER PAILS and LUNCH BOXES.

BUFFALO, N. Y.

Set up in use Folded

Send for our Catalogue. Prices quoted on application.

THE
Peerless Flue Stopper

Steel wire springs instead of sheet iron stays.
Stays where you put it, and is absolutely soot and smoke proof.
Made either plain or decorated.
Send for miniature sample and prices.

WELLING-BOWERS MFG. CO.
LIMA, OHIO.

Successors to WELLING MFG. CO., Columbus, Ohio.

The BOSS-CREAM SEPARATOR

The most complete device for handling milk winter and summer. No mixing of milk and water. Thousands were sold last year, and many more will be sold this year.
Write at once for descriptive circulars and prices.

Bluffton Cream Separator Co.
BLUFFTON, OHIO.

The SUPERIOR CREAM SEPARATOR.

The Only Separator That Saves Work and All the Cream.

Legs and Strainer With Each One.

For prices and agency write

Superior Mfg. Co., Indianapolis, Indiana.

We Make BRASS
FAUCETS
of Any Size or Style for
Cream Separators, Milk and Oil Cans.

ASK FOR CATALOGUE.

THE CLARK NOVELTY CO.,
ROCHESTER, N. Y.

Hero & Charm Barrel Churns, Union Geared Churns, Anti-Bent Wood Churns, Ash Dash Churns.

Patent dashers. O I C Quartered Oak Stable Pails, Everlasting Cypress Tree Tubs. Most extensive churn manufacturers on earth.

AMERICAN WOODEN-WARE MFG. CO., TOLEDO, O.

HOMESEEKERS EXCURSIONS
On FIRST and THIRD TUESDAYS in each Month to **VIRGINIA**
Via NORFOLK & WESTERN RAILWAY

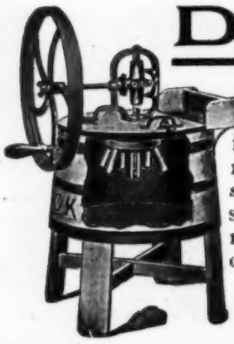
For all information as to Rates and Tickets and for LAND PAMPHLETS and descriptive matter, address
ALLEN HULL, D. P. Agt., Columbus, Ohio

THE LEONARD
Sectional ELECTROTYPE Cabinet

Offers the best system for the care of Electrotypes. Made of Oak in sections each 36 in. wide x 24 in. deep x 16 in. high. Each section contains ten extra strong drawers, size 15x 22½ x 1¾ deep. Each section will hold 700 electros 2x2. Buy one section or as many as you need, add to it at any time. Not sold through the trade; order direct of the factory.

Price, $5 per section, only 25c a drawer, and 25c for its frame; base $1.00, top $1.00.
Send for colored circular and full description of cabinet.

LEONARD MANUFACTURING CO.,
34 Market Street, - Grand Rapids, Mich.



Do You Know

That the **O. K. WASHING MACHINE** is the best made, the lightest running and the most attractive washer on the market? *Are you selling it? If not, why?* Every first-class dealer should sell it, because it is made of the best materials, by the best mechanics that can be obtained, and every one sold will sell another.

Write us for Circulars and Prices.

H. F. BRAMMER MFG. CO. Dept. B. DAVENPORT, IOWA

Peoria Washing Machines.

BEST IN THE MARKET.
MADE WITH BALL-BEARINGS.

Have a Compound Lever Handle which greatly reduces the work of wash days. The motion used in vibrating the handle takes the strain from the back and lets the arms do the work with a great reduction in labor.

Send for Catalogue.
Secure the Agency.

CLARK, QUIEN & MORSE,
PEORIA, ILL.

WHITE LILY WASHER

HIGH SPEED. LIGHT RUNNING.

Sold direct from manufacturers to dealers.
Only one dealer in each town.

SEND US A TRIAL ORDER.

WHITE LILY WASHER CO.

TOLEDO, OHIO. DAVENPORT, IOWA.
SAN FRANCISCO, CAL.

White Lily Washers Wash Lily White.

IT TOOK

Generations to make the

FOX

what they are, **A KING OF RAZORS!**

FOX CUTLERY CO., Sole Owners of the FOX TRADE-MARK

48 Center St., NEW YORK, N. Y. CANANDAIGUA, N. Y. 928 Main St., DUBUQUE, IOWA

ANDREW SNYDER, ALDEN, IA., WRITES:

"I would be lost without

THE AMERICAN ARTISAN

Every hardware dealer and especially every tin and sheet metal worker should not be without it."

IMPROVED NATURAL STONE GERM PROOF

WATER FILTERS

Prevent Zymotic Diseases by pushing sale of these goods in your locality.

EVERY FILTER IS GUARANTEED TO BE ABSOLUTELY GERM PROOF.

EVERY FILTER IS A PERFECT FILTER WHEN IT LEAVES OUR FACTORY.

Every shipment contains a handsome display card. Price lists and discounts are furnished upon application. Manufacturers of Sanitary Stoneware of every description. Pottery Established 1866.

FULPER POTTERY CO.
FLEMINGTON, N. J.

The "Weber Junior" Pumper

Can also be used for other power purposes.

is all complete, ready to attach to pump. Equals 30 men pumping water. Uses but little gasoline. Is shipped crated completely erected, all connections made. Easy to start, any one can operate it. Every one guaranteed. Other sizes up to 50 H. P. Send for catalog. Weber Gas & Gasoline Engine Co., P. O. Box 1115s, Kansas City, Mo.

You Buy the Stock
The Warren Shelving
Will Sell It

To California

Three trains Chicago to San Francisco and Los Angeles every day via

THE NORTH WESTERN LINE
C & N W R'Y

The Overland Limited, the luxurious electric-lighted train, leaves Chicago daily at 8 p. m. Less than three days en route. Two other daily trains leave Chicago at 10 a. m. and 11.30 p. m. All the luxuries of modern travel. Write for illustrated booklet and full particulars.

Chicago & North-Western Ry.,
W. B. KNISKERN,
PASSG'R TRAFFIC MANAGER.
CHICAGO.

Sausage Stuffer, Lard and Fruit Press with Patented Corrugated Spout

8 Sizes and Styles

Meat Juice Extractor

No. 21 $2.50

Bone, Shell and Corn Mill

No. 750 $8.50

N. Y. Branch, 10 Warren Street

ENTERPRISE

Food Choppers

TINNED

No. 100 *chops 2 lbs. of Meat per minute* $1.50
No. 300 *chops 5 lbs. of Meat per minute* $2.25

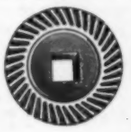
Four Knives with each Machine

Fine

Medium

Coarse

Nut Butter Cutter



Order from your Jobber — Illustrated Catalogue Free

The Enterprise Mfg. Co. of Pa.

Philadelphia, Pa., U. S. A.

Rapid Grinding and Pulverizing Mills

10 Sizes & Styles for Hand, Steam & Electric Power

No. 3 $5.50

Raisin Seeder

No. 36 $1.00

Cold Handle Polishing IRONS

No. 82 $7.50 doz.

San Francisco Branch, 105 Front Street

THE POPULAR

OCEAN WAVE WASHERS

Once sold they never come back "BECAUSE" they Wash Clean

WRITE FOR PRICES AND EXCLUSIVE AGENCY.

Light
Running
Handsome
Well Made

Adjustable
for High
or Low
Speed

SOLD ONLY TO ONE DEALER IN EACH TOWN.

TWO THOUSAND ESTABLISHED EXCLUSIVE AGENCIES.

Voss Bros. Mfg. Co.

MENTION THIS PAPER.

DAVENPORT, IOWA.

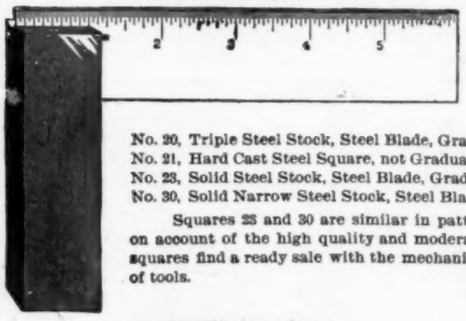
HURWOOD TOOLS
ARE INDESTRUCTIBLE.

WRITE FOR CATALOGUE

The Acme Manufacturing Co., Plantsville, Conn.

DISSTON MACHINISTS' SQUARES.

NO. 20 STEEL SQUARE.



Tried Inside and Out.

—QUALITY—
SUPERIOR

—FINISH—
ACCURATE.

No. 20, Triple Steel Stock, Steel Blade, Graduated, 1-32-inch.
No. 21, Hard Cast Steel Square, not Graduated.
No. 23, Solid Steel Stock, Steel Blade, Graduated, 1-16-inch.
No. 30, Solid Narrow Steel Stock, Steel Blade, not Graduated.

Squares 23 and 30 are similar in pattern to No. 20, and on account of the high quality and moderate price these two squares find a ready sale with the mechanics using this class of tools.

SEE CATALOGUE FOR FULL LINE.

Henry Disston & Sons, INC.

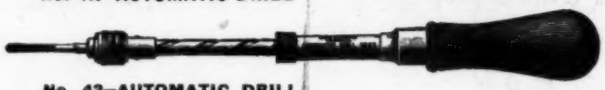
KEYSTONE SAW, TOOL, STEEL AND FILE WORKS,
PHILADELPHIA, PENNA.

"Yankee" Drills

MAGAZINE DRILLS IN No. 40 and 41

No. 40—AUTOMATIC DRILL, WITH RATCHET MOVEMENT

No. 41.—AUTOMATIC DRILL



No. 42—AUTOMATIC DRILL

No. 50—RECIPROCATING DRILL FOR WOOD OR METALS

Sold by Leading Jobbers.

Send for "Yankee" Tool Book.

North Bros. Mfg. Co., Philadelphia, Pa.

Buckeye Brand

Should be in every high class dealers stock.

Buckeye Paint & Varnish Co.
TOLEDO, OHIO.

THE CLEVELAND & BUFFALO TRANSIT COMPANY

C&B LINE

CONNECTING
CLEVELAND and BUFFALO
"WHILE YOU SLEEP"

UNPARALLELED NIGHT SERVICE. NEW STEAMERS
"CITY OF BUFFALO"
AND
"CITY OF ERIE"

Both together being, without doubt, in all respects the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD
DAILY INCLUDING SUNDAY

LEAVE		ARRIVE	
Cleveland	8 P.M.	Buffalo	6:30 A.M.
Buffalo	8 "	Cleveland	6:30 "

CENTRAL STANDARD TIME

ORCHESTRA ACCOMPANIES EACH STEAMER

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Toledo, Detroit and all points West and Southwest.

SPECIAL LOW RATES CLEVELAND TO BUFFALO AND NIAGARA FALLS EVERY SATURDAY NIGHT, ALSO BUFFALO TO CLEVELAND.

Ask Ticket Agents for tickets via C. & B. Line. Send four cents for illustrated pamphlet.

W. F. HERMAN, General Passenger Agent
CLEVELAND, O.

Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

SAGINAW, MICH.

Every Prudent Planter Provides Himself

with a **"NEVER-BREAK" GARDEN TROWEL** in preference to any other. This trowel is made for strenuous service. Blade and socket are made of uniformly thick steel. No tin ferrules, nor anything flimsy about this tool. The handle will not cramp the user's hand; it is turned to comfortable size out of natural finished hardwood.

Catalogue of Garden Trowels and Seamless Drawn Steel Cooking Utensils free on request. You should have one.

THE AVERY STAMPING CO., :: Cleveland, Ohio.

Makers of "Never-Break" Goods.

ADMITTEDLY THE BEST LOW-PRICED COMBINATION OIL STONE ON THE MARKET.

Carpenters and machinists will find this an important factor of their tool boxes. For sharpening chisels, planes or any edged tools they may use. It is indispensable.

One side is grained coarse for sharpening and taking nicks out, the other side is fine for smoothing and polishing.

Can be used with oil or water.

Send for our **GREEN BOOK** for particulars.

UTICA DROP FORGE & TOOL CO.

Manufacturers of Nippers and Pliers.

SMITH & HEMENWAY CO., Mfrs. Cutlery and Hardware Specialties,

296 Broadway, New York City, New York.

American Family Scale

BEST IN THE WORLD.

It is made of STEEL, TIN or BRASS Scoop Top.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20 pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use, and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

MANUFACTURED BY

AMERICAN CUTLERY CO.

CHICAGO, ILLINOIS.

SOME FACTS ABOUT TYPEWRITERS

Great progress has been made in building typewriters in the last three years, greater advances than in all the time previous. Years of experience have shown what was valuable and desirable and what should be sacrificed. Some typewriters do good work and are durable, yet are hard to operate and are cumbersome; others are too complicated and easily get out of order, do not keep alignment, etc.

Operators who have used The Fox Typewriter are unanimous in agreeing that it combines more desirable features than any writing machine yet produced. It is a basket type machine, with ball bearing carriage, two oz. key tension, half inch key dip aluminum finger levers with individual tension, adjustable typebars—insuring perfect alignment even after years of service, line lock, automatic line spacer, and automatic ribbon movement, combining the features that give durability with the lightest touch, easiest action and most simple construction.

Our 1903 catalogue tells all about it and will be sent for the asking. Our free trial plan enables anyone, anywhere, to try "THE FOX" for ten days. Write us to-day about it. FOX TYPEWRITER CO., LTD., 454 FRONT ST., GRAND RAPIDS, MICH.

You can get the entire mail box trade when you offer the

"GEM" at $1.00

WRITE US ABOUT IT.

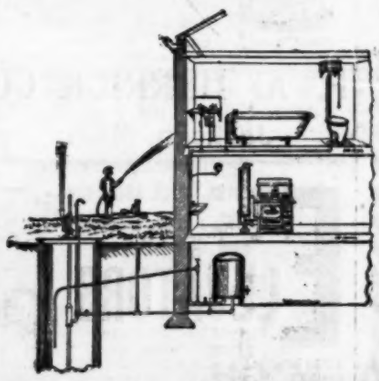
C. A. Peck Hardware Co.

Berlin, Wis.

Stanley Rule and Level Co.

IMPROVED CARPENTERS' TOOLS **Sold by All Hardware Dealers**

NEW BRITAIN, CONN.



A CITY WATER SUPPLY FOR COUNTRY HOMES

The Horigan Water Works System delivers water from well or cistern to every part of the house and grounds. Can be used with windmill, gasoline engine or hand pump. It enables you to place plumbing in homes which have heretofore been without it for lack of water service. Send for circulars and prices.

Horigan Supply Co., St. Joseph, Mo.

The Name **"BLACKLOCK"**

found on handle of every

SADIRON

we produce, insures satisfaction that is always pleasing.

Your wants in this line will be best considered in addressing the

Blacklock Foundry, South Pittsburg, TENNESSEE.

Cash Registers.

The Standard Cash Register wherever used by hardware dealers gives perfect and profitable satisfaction. Many thousands say so. Try one for profit. We have complete supply. Also Paper for all kinds of cash registers. Write for particulars.

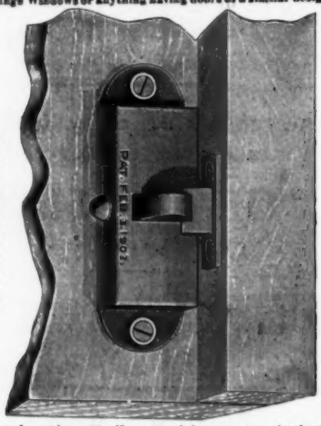
J. N. BIDDLE & CO.
5479 Lexington Ave., CHICAGO.

TACKS

TOWER M'F'G. CO.
ELM & FRONT STS.
CINCINNATI, O
MANUFACTURERS

The Duplex Automatic Screen Door Catch.

Is a practical and useful article, and is also used on Cupboards and Hinge Windows or anything having doors of a similar design.



1 Doz. in Box with Screws.

It works automatically, requiring no manipulation by hand or foot, as it automatically catches when the door closes, firmly holding it closed, until released by a slight pull or push, and can be dead locked when so desired. There is nothing in its construction to weaken or give out, and it can be applied by any person without difficulty. The DUPLEX CATCH gives unqualified satisfaction and is heartily endorsed by those who have used it, which insures a ready sale by the Hardware Dealer. Give it a trial.

The catch is furnished in the following finishes: Dull nickel on steel, old copper on steel, solid brass on steel. Is both cheap and good. Easily sold, as we furnish dealers with working model. All first-class hardware jobbers handle it. Made by

DUPLEX LATCH COMPANY,
Chamber of Commerce Bldg., CLEVELAND, OHIO.

Only ⅓ of a Day
Between
CHICAGO
and
CINCINNATI
via the
MONON ROUTE
CHICAGO, INDIANAPOLIS & LOUISVILLE RAILWAY
and C. H. & D. Ry.

Choice of 4 Superb Trains Daily.

DAY TRAINS equipped with Parlor and Dining Cars.

NIGHT TRAIN, with Palace, Sleeping and Compartment Cars.

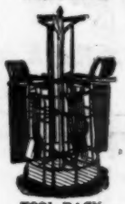
CHAS. H. ROCKWELL, Traffic Manager. FRANK J. REED Gen. Pass. Agt.

200 Custom House Place, Chicago.

THE OMAHA MOP PAIL

THESE ARE BOUND TO PLEASE.
Write Us.
CENTRAL MFG. CO., OMAHA, NEB.

HERRICK'S



TOOL RACK.

Well Displayed Is Half Sold!

You will find it a paying investment to use Herrick's tool racks, tool brackets, sampling hooks, hammer and hatchet cases and screw cases. Address

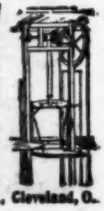
F. A. HERRICK CO.
Jackson, Mich.

SPERRY'S SUGAR KETTLES.

Light, smooth, full measure and guaranteed perfect. Made from original patterns. Metal, the right kind in the right place. Ask your Jobber for them or write us.

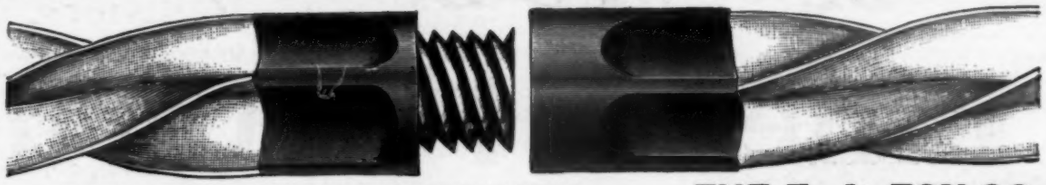
D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
BATAVIA, ILL.

Improved Quick and Easy Rising Steam, Electric and Hand Power
ELEVATORS



Send for Circulars.
KIMBALL BROS. CO.,
1031 Ninth St., Council Bluffs, Ia.
KIMBALL ELEVATOR CO., 129 Viscent St., Cleveland, O.

LIGHTNING RODS, COPPER, GALVANIZED STEEL.



THE TRADE SUPPLIED AT LOWEST RATES.
Send for New Illustrated Catalog, No. 4.

THE E. A. FOY CO.
640 Main Street, CINCINNATI, OHIO.

HOOKS.

For Conductor Pipe. All Sizes.

For BRICK or WOOD.

Made of the best malleable iron and first class every way.

Send for Catalogue.

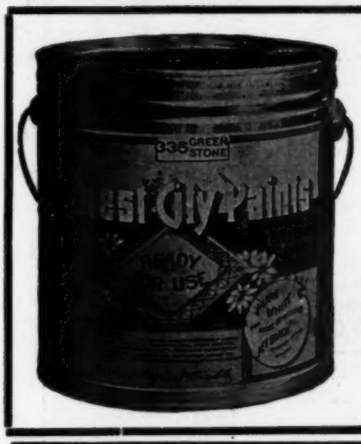
BERGER BROS. CO.

OFFICE AND STORE, 237 Arch Street
WAREROOMS, 100-02-04 Broad Street
FACTORY, 3114-16-18-20 N. 17th Street
PHILADELPHIA.

"FREAKS"

have no place in our line, but we carry a full line of up-to-date hardware staples and specialties on which we make attractive prices and prompt shipments.

CUTLER HARDWARE CO., Waterloo, Iowa



Some Brands

of Mixed Paints may be all right, Mr. Dealer, and then they may not. Is it not good judgment to lay in a stock which you know is right in both quality and price? We make such a paint and request your writing for literature and terms.

THE FOREST CITY PAINT & VARNISH CO.
CLEVELAND, O.

Style A All Steel Mower.

GENUINE
PHILADELPHIA LAWN MOWERS
MADE ONLY BY
The Philadelphia Lawn Mower Co.
3101 to 3109 Chestnut Street,
PHILADELPHIA, PA., U. S. A.

Send for Illustrated Catalogue.

Pacific Coast Representatives, BRIDGE & BEACH MFG. CO., San Francisco, Cal.

An Inexpensive Trip To California.

Fifty Dollars will be the price of a ticket to San Francisco or Los Angeles, and return, from Chicago, via the Chicago, Milwaukee & St. Paul and Union Pacific line, leaving Chicago May 3, or any day from May 12 to 18, inclusive. Tickets will be good to return until July 15. Less than three days from Chicago to San Francisco is the time of the new overland service via this line.

If you are ever going to visit California you should go this summer. Not only will the cost be nominal, but you will find the month of May a most pleasant season for the trip. There is no more delightful summer resort in the United States than Los Angeles with its mountains fifteen miles north and its sea-coast fifteen miles south. There is no more fascinating city in America than San Francisco.

A sojourn on the Pacific Coast will put new breath in your lungs, richer blood in your veins, stronger muscles in your limbs, and greatly increase your knowledge of the country you live in.

Literature descriptive of the new overland service to California as well as information about tickets and train service, promptly forwarded on request.

F. A. MILLER, General Passenger Agent, Chicago.

Manufacturer of King Carpet Stretcher, Tack Hammer, Tack Puller, Mincing Knife, Carpet Beater, Clothes Line Holder, Broom Holder, Tea Pot Knobs, Etc.

Sitterly Novelty Works, Auburn, N. Y.

100
Tinners' Patterns

THE AMERICAN ARTISAN FULL SIZE PATTERNS

Comprise patterns for a full line of tinware, in numerous sizes, square and round elbows, cut-offs, etc. These full-size patterns, numbering upward 100, are printed on manilla paper, from which they are readily transferred to heavy sheets and cut out ready for use. The list contains the following patterns:

Tea Steeper
Two-pint Tea Pot
Three-pint Tea Pot
Four-pint Tea Pot
Five-pint Tea Pot
One-quart Coffee Pot
Two-quart Coffee Pot
Three-quart Coffee Pot
Four-quart Coffee Pot
Five-quart Coffee Pot
No. 1 Coffee Boiler.
No. 2 Coffee Boiler
No. 3 Coffee Boiler
Lamp Filler
One-pint Dipper
One-quart Dipper
Two-quart Dipper
Four-quart Flaring Pail
Six-quart Flaring Pail
Eight-quart Flaring Pail
Ten-quart Flaring Pail
Twelve-quart Flaring Pail
Fourteen-quart Flaring Pail
Ten-quart Dish Pan
Twelve-quart Dish Pan
Fourteen-quart Dish Pan
Sixteen-quart Dish Pan
Dinner Bucket
Five-inch T-Joint
Six-inch T-Joint
Eave Trough Mitre Joint
"Snap" 2-inch Conductor Elbow
Cullender
Two-inch Square Elbow
Two-and-a-half-inch Square Elbow
Three-and-a-half-inch Square Elbow
Four-and-a-half-inch Square Elbow
Five-and-a-half-inch Square Elbow
Six-and-a-half-inch Square Elbow
Seven-and-a-half-inch Square Elbow
One-pint Funnel
Two-pint Funnel
Three-pint Funnel
Four-pint Funnel
Small Milk Strainer
Large Milk Strainer
Ten-quart Milk Pail Breast
Fourteen-quart Milk Pail Breast
Two-inch Four-piece Round Elbow
Three-inch Four-Piece Round Elbow
Four-inch Four-Piece Round Elbow
Five-inch Four-Piece Round Elbow
Five-and-a-half-inch Round Elbow
Six-and-a-half-inch Round Elbow
Seven-and-a-half-inch Round Elbow
Small Grocers' Scoop
Medium Grocers' Scoop
Large Grocers' Scoop
Apple Corer
Oval Foot Bath
Oval Pudding Pan
Half-gallon Can Breast
One-gallon Can Breast
Two-gallon Can Breast
Three-gallon Can Breast
Half-pint Measure
One-pint Measure
One-quart Measure
Half-gallon Measure
One-pint Basin
Two-pint Basin
Three-pint Basin
Four-pint Pan
Six-quart Pan
Ten-quart Pan
Small Cake Pan
Medium Cake Pan
Large Cake Pan
Small Wash Basin
Large Wash Basin
Sprinkler Breast
Four-gallon Churn
Five-gallon Churn
Small Dust Pan
Large Dust Pan
Five Sizes Funnel Patterns
Oval Dinner Bucket
Rain Water Cut-off
No. 7 Boiler Cover
No. 8 Boiler Cover
No. 9 Boiler Cover
No. 7 Boiler Bottoms
No. 8 Boiler Bottoms
No. 9 Boiler Bottoms

THE AMERICAN ARTISAN full size patterns are a great convenience, and in no other way can they be obtained at so small a cost. Price, sent postpaid for the

FULL SET OF 100 PATTERNS $1.00.

DANIEL STERN, 69 Dearborn Street, CHICAGO, ILL.

TO BE SEEN IS TO BE SOLD

EVERY HARDWARE DEALER WHO HAS BOUGHT

The Up-to-Date TROUSERS HANGER

HAS RE-ORDERED AGAIN AND AGAIN

It is the best yet at the right price (10c) and our attractive display box does the selling.

JOBBERS in every section carry them.

CALDWELL MFG. CO., Rochester, N. Y.

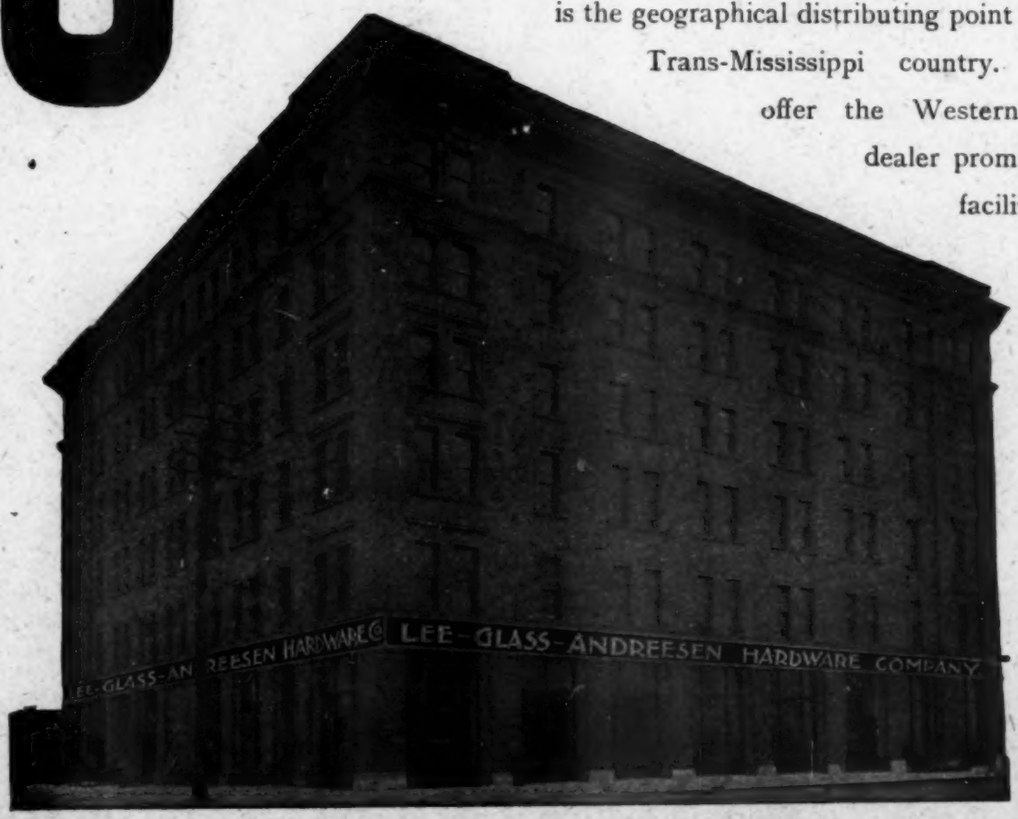
40 DEARBORN STREET, CHICAGO

OMAHA

is the geographical distributing point of the great Trans-Mississippi country. We can offer the Western hardware dealer prompt shipping facilities that are absolutely beyond the reach of our competitors.

Our prices are right.

Our goods are made to meet Western requirements.



IF YOU knew our goods and prices we would feel pretty certain about getting your next order for Roofing Tin.

Send us a postal for sample set A. Write it to-day.

THE McCLURE COMPANY,
Tinplate Manufacturers.
MILLS: WASHINGTON, PA. PITTSBURG, PHILADELPHIA.

THE "CENTENNIAL" Rain-Water Cut-Off

The strongest, most durable, and cheapest CUT-OFF on the market.

The only single Cut-Off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers. Patent applied for.

Manufactured only by **Cooney & Geiger,** 19 and 21 E. South St., INDIANAPOLIS, INDIANA.

"PULLMAN" Sash Balances

Are you selling them?
In use Everywhere.
Look for the Metal Tapes in All New Buildings.
Folder No. 2 sent free.

PULLMAN MFG. CO.
Rochester, N. Y., U. S. A.

EXCELSIOR FOR PACKING PURPOSES
Ask for price F. O. B. Your station.
THEO. P. HUFFMAN & CO.
648 & 650 W. 34th Street, NEW YORK CITY.

BRADLEY SHELF BRACKETS.
Strong, Light and All Right.
ATLAS MFG. CO., New Haven, Ct.

WE HAVE

SIMPLIFIED OUR BUSINESS

Having disposed of our entire stock of House-Furnishing Goods, Kitchen Utensils, etc., we shall devote our entire attention to the

Three Lines of

Tinner's, Roofer's and Furnace Men's Supplies.

Complete Stocks. Prompt Shipments.

The J. M. & L. A. Osborn Company
Cleveland and Columbus, Ohio.

STEVENS

GUN GREASE

For Cleaning and Protecting Fire Arms and Bright Metal of any kind.

JUST THE THING FOR THE DEALER

Price 15c per Tube

SEND FOR CATALOG OF

Rifles, Pistols, Shot Guns

J. STEVENS ARMS & TOOL CO.
298 MAIN STREET
CHICOPEE FALLS, MASS.

The "Globe" Ventilator

In Brass, Copper, Galvanized Iron and with Glass Tops for Skylight purposes.

For Perfectly Ventilating

Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

Smoky Chimneys Cured.

"Globe" Ventilated Ridges. Send for Pamphlet.

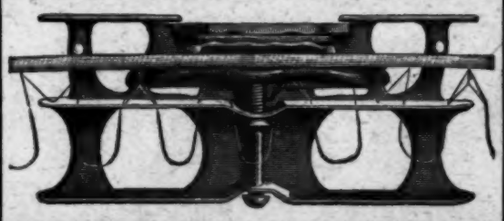
Manufactured by

Globe Ventilator Co., Troy, N. Y.

ATKINS Makes the Only GENUINE EXCELSIOR SAW TOOL

Comprising Combined Side File, Jointer and Raker Tooth Gauge, Setting Block and Tooth Set Gauge.

Beware of base and cheap imitations claiming to be "just as good" as the Atkins. If you want a cheaper tool, our "Leader" will suit you.



Nearly One Million sets of Excelsior Tools have already been sold. Most popular tools for keeping cross-cut saws in order on the market.

E. C. ATKINS & CO., LEADING SAW AND TOOL MANUFACTURERS. Factories: INDIANAPOLIS, IND.
Branches: New York City. Memphis, Tenn. Atlanta, Ga. Minneapolis, Minn. Portland, Ore.